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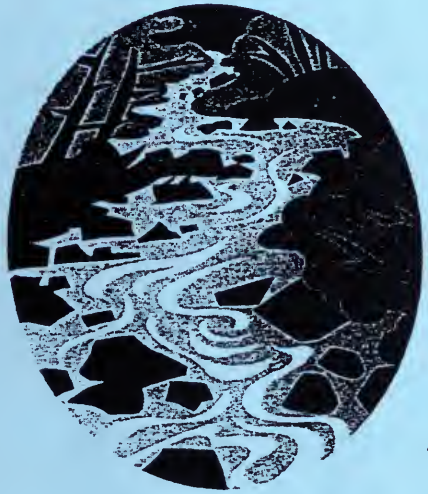
Montana's Water Policy -- 1997-98



An EQC "Communique" to the Montana Legislature

Environmental Quality Council
State Capitol, Helena, MT 59620-1704
406-444-3742

Public Review Draft -- 9/17/98

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-- 1. INTRODUCTION --
THE EQC'S WATER-RELATED STATUTORY DIRECTIVES

Montana's statutes specify two levels of EQC oversight of water policy; (1) a broad oversight/evaluative/ communicative role, and (2) several program-specific roles. The Council also has some general environmental and natural resource statutory authorities and duties, many of which relate to water resources. These authorities and mandates are described below.

BROAD ROLE...

The Council's broad water policy duties are described below. The fulfillment of these duties over the 1997-98 Legislative Interim is the subject of Chapter 3 of this report.

> **85-2-105. Environmental Quality Council -- Water Policy Duties.** ... (2) On a continuing basis, the environmental quality council shall:
> (a) **advise** the legislature on the adequacy of the state's water policy and on important state, regional, national, and international developments that affect Montana's water resources;
> (b) **oversee** the policies and activities of the department (of natural resources), other state executive agencies, and other state institutions as those policies and activities affect the water resources of the state; and
> (c) **communicate** with the public on matters of water policy as well as water resources of the state... *(emphasis added)*

SEVERAL PROGRAM-SPECIFIC ROLES...

The Council's four program-specific roles are described below. The fulfillment of these duties over the 1997-98 Legislative Interim is described in Chapter 4 of this report.

> **85-2-105. Environmental Quality Council -- Water Policy Duties.** ... (3) On a regular basis, the environmental quality council shall:
> (a) analyze and comment on the **state water plan** required by 85-1-203, when filed by the department;
> (b) analyze and comment on the report of the status of the state's **renewable resource grant and loan program** required by 85-1-621, when filed by the department;
> (c) analyze and comment on **water-related research** undertaken by any state agency, institution, college, or university;
> (d) analyze, verify, and comment on the adequacy of and information contained in the **water resources data management system** maintained by (NRIS) under 85-2-112; and
> (e) **report** to the legislature as provided in 5-11-210.... *(emphasis added)*

WATER-RELATED COMPONENTS OF FULL-COUNCIL ACTIVITIES...

In addition to the Council's water-specific statutory roles described above, the Montana Environmental

Policy Act (75-1-324, MCA) confers broad, general duties on the Council, summarized as follows:

- gather and analyze information related to environmental quality and environmental conditions and trends in Montana;
- evaluate state programs and activities regarding their achievement of state natural resource and environmental goals and recommend improvements;
- respond to legislative requests, and make responses available to others;
- analyze natural resource legislative proposals, and others that might impact natural resources;
- provide information to legislative committees, administrative agencies, and the public;
- assist legislators who are preparing environment-related legislation; and
- review environmental programs to identify conflicts and suggest solutions.

Water-related components of full-Council activities that may be relevant to the Legislature are described in Chapter 5 of this report.

2. COUNCIL WATER POLICY EFFORTS OVER THE 1997-98 INTERIM

The Environmental Quality Council created their Water Policy Subcommittee at their September, 1997, meeting, and charged the Subcommittee (among other things) with assisting the Council in meeting its water-related statutory mandates. The Subcommittee was to make a priority of HB546 ("TMDL" bill) oversight, and had the freedom to address and research other water-related issues as they saw fit. They were to provide recommendations for full-Council consideration at the end of the Interim.

Water Policy Subcommittee members included:

Rep. Bill Tash (Subcommittee Co-Chair)
Rep. George Heavy Runner
Rep. Karl Ohs
Sen. Bea McCarthy (Subcommittee Co-Chair)
Sen. Vivian Brooke
Mr. Bill Snoddy

The Council added that the four program-specific updates (as well as an update on water leasing) should occur in front of the full Council, and that the Subcommittee's approach to HB546 implementation oversight should seek to involve the full Council where appropriate. Ms. Kathleen Williams of the Legislative Environmental Policy Office (LEPO) was assigned as the primary staff person for the Subcommittee. Ms. Liz Hansen, LEPO Intern, assisted in the drafting of this report. Mr. Todd Everts (LEPO Director) provided staff assistance, and Ms. Maureen Theisen (Publications Coordinator) assisted with report preparation.

The EQC's Water Policy Subcommittee approved their work plan in January, 1998, which included the following goals for the Interim:

- **Plan for, and pursue, a productive Interim, but retain flexibility to address issues as they arise.**
- **Ensure the Council has the information and products necessary to achieve its water-related statutory goals in a timely manner over the Interim.**
- **Enable Subcommittee members to better explain water quality regulation in general, and TMDL implementation specifically.**
- **Propose legislation to the Council, where appropriate, to address water-related policy issues.**

The Subcommittee role was to recommend actions to the full Council. They employed a collaborative approach to arrive at their recommendations.

The Subcommittee met approximately every other month during the 1997-98 Interim, as did the full Council. The major water-related topics heard by either the Subcommittee or full Council are listed in Table 1 (see next page).

The following chapters describe the information, issues, and recommendations the Subcommittee and full Council felt should be forwarded to the 56th Legislature. Recommendations are interspersed in the relevant text sections, so are also summarized in Table 2.

Table 1. Subcommittee and Full Council Water Policy Topics Heard in the 1997-98 Interim

Month	Water Policy-Related Topics Heard by... EQC Water Policy Subcommittee	full EQC
September, 1997 (Helena)	Subcommittee Organizational Meeting	MEPA Training/Project Update Water Inf. System Update* State Water Plan* (proposed Wetland Chapter) Update
November, 1997 (Missoula)	Water Quality/TMDL Training Examples of TMDL Efforts at Varied Scales Septic/TMDL Issues	3 Instream Flow Programs EQC tour of liner-board facility
January, 1998 (Helena)	Wetlands Portion of State Water Plan* (more) Dam-Related Issues Return Flow Studies Fish Eradication Policy HB546 Implementation Update 303(d) Listing/Delisting Septic Regulation/Impairments	BMP Mini-Seminar (part 1) DEQ response to recent issues
March, 1998 (Helena)	State Water Plan* General Update FWP Instream Flow Leasing Report The 1998 303(d) List HB546 and Interagency Coordination Statewide TMDL Advisory Group Update More HB546 Policy Issues	BMP Mini-Seminar (part 2)
May, 1998 (Great Falls)	Subcommittee Feedback on Proposed DOT Bill More HB546 Policy Issues "Sufficient Credible Data" Decisions DEQ Presents HB546-Required "Schedule" Hilger Area Mine/Water Issues (unscheduled)	Water Research* Update Blackfoot River Landslide Bull Trout Management Superfund/Fuel Tank Issues
June, 1998 (Dillon)	Subcommittee as State Water Plan Advisory Group on Ground Water Chapter Gallatin Vally Water Right/Subdivision Issues	HB546 Demonstration Tour: (Upper Beaverhead Valley) Dialogue w/Watershed Groups/ Conservation Dist. reps. Ren. Res. Grant/Loan* Update FWP Fisheries 2000 Update
July 27, 1998	Subc./Council Co-Chair Field Trip to Hilger Area to Discuss Mine/Water Issues	
August, 1998	Further State Water Plan Advice to DNRC Draft Recommendations for; Water Policy, HB546 Oversight, and FWP Leasing Reports	(no Council meeting in August)
September, 1998	(fill in)	(fill in)
October, 1998	(fill in)	(fill in)
December, 1998	(no meeting?)	Subcommittee Critique of Interim

* Denotes topic the Council is statutorily required to "analyze and comment" on (see Chapter 4).

Table 2. Summary of Recommendations

1.

2.

3.

4.

5.

6.

7.

(fill in when recommendations drafted...)

3. THE EQC'S BROAD WATER POLICY MANDATE

Section 85-2-105, MCA requires the EQC to:

> (a) **advise** the legislature on the adequacy of the state's water policy and on important state, regional, national, and international developments that affect Montana's water resources;
> (b) **oversee** the policies and activities of the department (of natural resources), other state executive agencies, and other state institutions, as those policies and activities affect the water resources of the state; and
> (c) **communicate** with the public on matters of water policy as well as water resources of the state...
> *(emphasis added)*

The following describes the Subcommittee and Council efforts in these areas over the 1997-98 Interim.

ADEQUACY OF THE STATE'S WATER POLICY

The EQC's Water Policy Subcommittee felt that one way to communicate their conclusions related to the adequacy of Montana's water policy was to describe some aspects they felt were positive components of state policy, and others where (based upon their personal knowledge and information gathered over the Interim) there may be some cause for concern. As with all Subcommittee conclusions, the aspects described below are consensus conclusions of the Subcommittee, unless otherwise noted.

Things that are Working Well

- **Conservations districts and watershed groups associated with them** need to be recognized for their efforts to resolve natural resource issues at the local level, and in dealing with the policies that are passed to them by the Legislature.

- Holding **Legislative committee meetings out of Helena** is a very productive way to view water-related issues and program implementation in Montana, and to discuss local impacts and responses to state policy with a wider variety of Montana's citizens. It also provides broader general access to the Legislature by providing an opportunity to hear from citizens and agency representatives that would not normally travel to Helena to attend a Legislative meeting. In addition to holding meetings outside of Helena, committee tours of natural resource uses and conditions in varied areas of Montana were beneficial, to see how legislation was working on the ground.

- (suggestions for additional entries?)

-

-

Topics of Concern

- **Agency attempts to coordinate better** within their own divisions and with other agencies are positive and important steps, but there is continued room for improvement.
- (suggestions for additional entries?)
-
-

Recent Court Challenges/Actions Related to Montana's Water Policy

Legislation sets natural resource policy, but the judicial branch of government is one entity involved in the determination of its "adequacy". The following is a summary of relevant court cases where either state or federal judicial scrutiny has been focussed on water policy in Montana and/or its implementation.

- **EPA challenged for not reviewing changes to Montana's water quality standards** (American Wildlands v. Carol Browner).

  Three environmental groups filed a lawsuit against EPA on June 27, 1998 regarding review of Montana's water quality standards. The plaintiffs allege that EPA has violated the Clean Water Act (CWA) by not reviewing and approving (within 60 days) or disapproving (within 90 days) revisions to Montana's water quality standards. Montana revised key provisions of its water quality standards in 1993, 1994, 1995, and 1997, and EPA failed to review statutory or regulatory changes. The complaint references a recent court decision from Alaska that stated that, under the Clean Water Act, EPA must review and approve or disapprove each new and revised State water quality standard before it takes effect. EPA (and Montana DEQ) disagree with the court's interpretation. DEQ staff will report back to the EQC on whether the referenced case is being appealed.

  The lawsuit requests a court order 1) finding EPA in violation of the CWA, 2) requiring EPA to review and approve or disapprove revisions to Montana's water quality standards, and 3) requiring EPA to promulgate water quality standards for any disapproved portions of Montana's existing standards that are not corrected by the State within 90 days of EPA's disapproval notice to the State.

  Plaintiffs also request the court to issue temporary restraining orders and preliminary and permanent injunctions as may be appropriate and necessary until final water quality standards that meet the requirements of the CWA are adopted by or for the State of Montana.

  Implications: Court may render the current MT water quality standards not effective until affirmative approval by EPA. Thus, water quality statutes that were one of the 1993-97 revisions may not be currently valid. If EPA disapproves any of the new/revised MT water quality standards, those revisions shall remain invalid or become invalid on the date of EPA's

disapproval.

Current status: As of September 4th, 1998, the federal government had several weeks within which to respond to the complaint. If EPA were to approve Montana's standards in the meantime, the case would be moot. EPA has sent a letter to DEQ with questions regarding Montana's Water Quality Act. Many questions related to statutory changes made to the Act in 1993 and 1995. DEQ legal staff are responding. If the case is not mooted via an EPA review decision, DEQ plans to intervene in the case before the federal government must file its response. There has been no indication as to what injunctions or restraining orders would be necessary if the plaintiffs were to prevail. Significant concern has been expressed by the regulated community regarding the broad scale of potential economic and social impacts of the plaintiffs prevailing in this case. The Water Policy Subcommittee requested Mr. North (Chief Legal Counsel, DEQ) to check on any appeal of the Alaska case, and keep the Subcommittee/Council informed of progress in the case.

- **TMDL lawsuit challenges Montana's §303(d) list and TMDL progress** (Friends of the Wild Swan, Inc. v. Browner (1997)).

Plaintiffs allege that EPA violated the Clean Water Act (CWA) by; (1) failing to promulgate a list of "threatened" and "impaired" waters for the State of Montana when Montana did not meet the appropriate deadlines to file such a list, and (2) by failing to promulgate Total Maximum Daily Loads (TMDLs) for each body or segment of water on the §303(d) list, as required by the CWA when a state has not made progress toward setting TMDLs. Plaintiffs also allege that EPA violated the Administrative Procedures Act (APA) by approving deficient §303(d) lists submitted to EPA by the State of Montana--the lists were "deficient" because they represent assessment of only a fraction of Montana streams and fail to identify all "threatened" and "impaired" waters.

Plaintiffs request the court to issue a declaratory judgment that EPA is in violation of the CWA with respect to § 303(d) lists and TMDLs for the State of Montana. Plaintiffs also request the court to mandate EPA to identify and prioritize a §303(d) list of all "threatened" and "impaired" waters in Montana and to establish TMDLs for those waters on the list within three (3) years from the date of judgment.

Implications: Montana could lose primacy over promulgation of its § 303(d) list and TMDL development, or less drastic, Montana could be required to meet specific, court-ordered deadlines for §303(d) list promulgation and TMDL development with close scrutiny and monitoring from EPA. (Note: This case is further discussed in the Council's *HB546 Oversight Report to the Legislature*, available from the EQC office -- 444-3742.)

- **Challenge to the permitting provisions of the Montana Water Use Act,** as amended by SB 97 (Confederated Salish and Kootenai Tribes v. Bud Clinch).

The Confederated Salish and Kootenai Tribes ("Tribes") have sued the Montana Department of Natural Resources and Conservation ("DNRC") and the State of Montana, challenging 1997 amendments to permitting provisions of the Water Use Act. (The amendments now being challenged--Senate Bill 97, also known as the "Pope" bill--eliminate consideration of tribal reserved water rights when reviewing applications for new or change of use water permits.)

Specifically, the Tribes assert that DNRC has no authority to grant water use permits on the Flathead Indian Reservation until the Tribes water rights have been quantified.

In January, 1998, the Montana Supreme Court accepted original jurisdiction of the case and classified the case for oral argument, but (as of 9/9/98) has not set a date. According to DNRC legal counsel, it is possible that the Court could reject the request for original jurisdictoin once they have read all the briefs (which was the suggestion made by the federal government and state in their respective briefs). The Tribes final briefs are due September 16, 1998.

Implications (if review not rejected): Possible invalidation of the 1997 amendments at issue in this case, and reiteration of the Montana Supreme Court's 1996 decision in Ciotti that DNRC has no authority to issue water use permits on the reservation until the Tribes reserved water rights have been quantified.

- Confederated Salish and Kootenai Tribes have **treatment-as-state status** under the Clean Water Act. Montana v. EPA, 137 F.3d 1135 (1998).

In response to a State challenge, the 9th Circuit Court of Appeals upheld the treatment-as-state status granted to the Confederated Salish and Kootenai Tribes ("Tribes") by EPA under the Clean Water Act. With treatment-as-state status, the Tribes have the right to set water quality standards for surface waters on Indian and non-Indian land within their reservation. The 9th Circuit decision upholds a 1996 ruling by U.S. District Court Judge Charles Lovell in Helena.

When the Confederated Salish and Kootenai Tribes set water quality standards on the reservation, the Tribes adopted the same standards as those in existence for the State of Montana. The tribes' standards have remained the same, while the State's standards have been revised somewhat in 1995 and 1997. The EPA, not the Tribes, asserts enforcement authority over NPDES permitting and Clean Water Act compliance on the reservation.

The State has appealed the decision to the U.S. Supreme Court. The Attorney General's office expects to be informed in early October whether the Court will hear the case.

- **Mandated "Reconsideration" of Potential Bull trout listing**

In 1994, an Oregon U.S. District Court ordered the U.S. Fish and Wildlife Service (FWS) to reconsider the agency's decision that bull trout were "warranted" for listing under the federal Endangered Species Act, but "precluded" due to other agency priorities. In response, on June 10, 1997, the FWS proposed listing of the Columbia River population segment of Bull trout as "threatened" under the federal Endangered Species Act (ESA), initiating a one-year maximum timeclock within which to make the listing decision. On June 5, 1998, the Columbia population segment was listed as "threatened" and the St. Mary's population segment was proposed as "threatened". According to the FWS, listing decisions are to be based solely on biological information.

Implications: The U.S. Fish & Wildlife Service must now prepare a formal Recovery Plan for the

listed bull trout population segment (Columbia River). Agencies and others will have to consult with the U.S. Fish & Wildlife Service to discuss proposed projects which may have an effect on bull trout, before project implementation. (See also discussion under "Endangered Species", pp. __ of this Report.)

- **Westslope Cutthroat Trout lawsuit**

Several environmental groups petitioned the Fish & Wildlife Service ("FWS") in May, 1997 to list the westslope cutthroat trout as a "threatened" species under the Endangered Species Act. On March 3, 1998, the groups filed a lawsuit against the federal government citing the failure by FWS to review the westslope cutthroat petition within the required deadline of 90 days after submission. Plaintiffs request a court order requiring FWS to respond to their petition for "threatened" listing of westslope cutthroat trout. Plaintiffs state that westslope cutthroat trout are only found in 2.5 percent of their historic range in Montana.

Implications: This case is similar to the cases brought against the federal government which eventually secured listing of the bull trout as a "threatened" species. As a result of this and possible future litigation, westslope cutthroat trout may be listed as a "threatened" species throughout its historic range in Montana.

- **Water Court fees for adjudicating late claims.**

The Montana Water Court issued an order requiring water masters and water judges to keep track of all time spent adjudicating late water right claims (claims not filed by the statewide adjudication deadline of April 30, 1982.) Late claimants will be assessed $25 per hour for adjudication of their claims. In addition, claimants will be responsible for general expenses associated with adjudicating their claims, such as travel expenses, and telephone, postage, and copying charges that exceed $10. The Water Court will not issue a final ruling on the claim until the late claim costs are paid, and the claim will be terminated if the costs are not paid within a reasonable amount of time.

- **Burden of proof** required by the prima facie statute with respect to **water rights** adjudication. Burkhartsmeyer Land Company, Case No. 40G-2.

The Water Court held that a properly filed water right claim establishes a prima facie case for the claimant which meets the minimum threshold of evidence necessary to shift the burden of production to an objector. An objector must produce enough evidence to overcome the claimant's prima facie case by a "preponderance of the evidence" (meaning "more probable than not"). The claimant is then given an opportunity to introduce additional evidence in support of the claim.

When no objector presents contrary evidence, a claimant's properly filed claim (prima facie claim) will generally satisfy a claimant's burden of proving the water right. The Water Court cautioned, however, that it is not a rubber stamp and is not compelled to accept a claim if no objection is filed. The court may still call claims in on its own motion.

- (Any other court actions that should be included?)

IMPORTANT DEVELOPMENTS THAT AFFECT MONTANA'S WATER RESOURCES

Given the Council's statutory requirement to "advise the legislature on ... important state, regional, national, and international developments that affect Montana's water resources...", the Water Policy Subcommittee decided early in the Interim that each of their meetings should contain an agenda item related to "important developments". During these agenda items, EQC staff, Subcommittee members, and meeting attendees shared information on recent issues, actions, or events that relate to Montana's water resources. Over the summer months (1998), EQC staff collated all topics that had been discussed and polled Subcommittee members, and the Council Co-Chairs, regarding which of the topics they had discussed they felt were "important" enough that the Legislature should be "advised" of them. The Council member feedback formed the basis for the outline and topics provided below.

(Note: Given the "current event" nature of these topics, they go out of date quickly. EQC staff will continue to update the information as necessary prior to submittal to the Legislature. The reader should note, however, that the longer the time between their reading this document and its publication date, the more likely there have been changes in the situations described below. EQC staff encourage anyone who wishes to inquire as to the current status of these issues to contact them at 444-3742, or in person -- Room 106 of the State Capitol, Helena.)

HB546 (the "TMDL Bill") Implementation

One of the major pieces of natural resource legislation in the 1997 Session was HB546 (the "TMDL bill"), which further directed the Montana Department of Environmental Quality to monitor and assess state waters, and develop water quality improvement plans ("TMDLs") for those waters which are deemed threatened or impaired. The Legislature provided over $1.4 million in funding and authorized nine new FTEs to implement revisions to the program. The state already had a list of about 800 waters that were considered to have water quality problems, though there had been criticism on how that list had been constructed. A lawsuit was filed against EPA concerning Montana's alleged lack of progress in these areas (see separate discussion, above) .

As a result of the legislation, and the need to show progress to ensure state primacy over water-related programs is maintained, DEQ has thrown itself into the "traces" and is trying to move a major program revision forward. (This topic is covered in detail in the Council's *HB546 Oversight Report*, copies of which may be requested from the EQC office at 444-3742.)

Endangered Species

On June 10th the U.S. Fish and Wildlife Service (FWS) announced the **listing of bull trout as "threatened" in the Columbia basin.** According to FWP staff, the impacts to Montana are potentially huge, but are somewhat unknown. The real impact will depend upon how the FWS enforces the listing

(with enforcement generally driven by complaints and lawsuits).

An unusual aspect of the listing was the listing of the entire Columbia basin (including much of Montana west of the Divide) as one "distinct population segment." This means that to fully recover the bull trout, recovery must occur throughout the basin, even though chances might be higher for recovery, say, in portions of Montana vs. portions of Oregon. FWP staff note, however, that the FWS has stated that even through the species would have to be recovered throughout the listing area to be de-listed, the FWS could propose rules that would reduce the requirements for incidental take permits, thereby allowing for reduced regulation in areas showing progress.

In general, a listing invokes a requirement for federal actions to obtain "section 10" consultation approval, state fish and wildlife agencies to obtain "section 6" approval, and other actions that could invoke "harm" to obtain an incidental take permit, which normally requires the preparation of a habitat conservation plan. Plum Creek is currently working on a Habitat Conservation Plan, that, if approved, would allow for blanket "incidental take" permits for the activities covered in the Plan.

One of the most important components of the listing is the determination of activities that would or would not constitute a violation of the Act. According to the Rule,

> ... the Service believes the following actions would not be likely to result in a violation..., provided the activities are carried out in accordance with any existing regulations and permit requirements --
> (1) Actions that may affect bull trout in the Klamath and Columbia River basins and are authorized, funded or carried out by a Federal agency when the action is conducted in accordance with an incidental take statement issued by the Service pursuant to section 7 of the Act;
> (2) Possession of Columbia River basin bull trout caught legally in accordance with authorized State fishing regulations...;
> (3) State, local and other activities that have been approved by the Service through development of Conservation Plans and special rules...
>
> With respect to both the Klamath River and Columbia River bull trout population segments, the following actions likely would be considered a violation...
> (1) Take of bull trout without a permit, which includes harassing, harming, pursuing, hunting, shooting wounding, killing, trapping, capturing, or collecting, or attempting any of these actions, except in accordance with applicable State fish and wildlife conservation laws and regulations within the Columbia River bull trout population segment;'
> (2) To possess, sell, deliver, carry, transport, or ship illegally taken bull trout;
> (3) Unauthorized interstate and foreign commerce ... and import/export of bull trout...;
> (4) Introduction of non-native fish species that compete or hybridize with, or prey on bull trout;
> (5) Destruction or alteration of bull trout habitat by dredging, channelization, diversion, in-stream vehicle operation or rock removal, or other activities that result in the destruction or significant degradation of cover, channel stability, substrate composition, temperature, and migratory corridors used by the species for foraging, cover, migration, and spawning;
> (6) Discharges or dumping of toxic chemicals, silt, or other pollutants into waters supporting bull trout that result in death or injury of the species; and
> (7) Destruction or alteration of riparian or lakeshore habitat and adjoining uplands of waters supporting bull trout by timber harvest, grazing, mining, hydropower development, or other developmental activities that result in destruction or significant degradation of cover, channel stability, substrate composition, temperature, and migratory corridors used by the species for foraging, cover, migration, and spawning.
>
> Other activities not identified above will be reviewed on a case-by-case basis to determine if a violation... may be likely to result... (Federal Register, p. 31673)

The wording in the rule is broad. Interpretive guidance has not been prepared, so many are wondering the extent of its sweep. According to FWP staff, the FWS has one person assigned to bull trout consultation and recovery in Montana. This person, though very experienced, has a very big job. According to FWP staff, he is focussing his current efforts on working with the Forest Service, as these lands are where the FWS feels they can get the biggest conservation "bang for the buck" in Montana. With any listing, there is encouragement of developing pooled conservation plans, rather than a plan for each "incidental take" permit needed. Questions loom as to; potential impacts to 310 projects, water diversions, the extent of "adjoining" associated with "uplands" in subsection (7) of the rule, the definition of discharge of "silt" in subsection (6), etc. There may be answers to many of these interpretive questions by looking at experiences with other listed species, but Montana has many questions at this point.

There are a few things Montana is doing, however. The FWP is moving forward under a special section of the ESA to get their fisheries-related projects approved under the Act (for state fish and wildlife agencies only). They are also moving forward on their **westslope cutthroat trout recovery plan**, with the hope that early movement will avoid a "warranted for listing" finding from the FWS next year. The range for this species is basically, the west slope, plus the upper Missouri drainage. FWP is also considering moving forward on a **Yellowstone cutthroat plan** (headwaters to just above Billings), which may have even more likelihood of approval, since there has been no court action on this species yet. The FWS appears to be trying to support these state-initiated efforts, as long as court decisions do not "force their hand" in these matters. Interestingly, the **grayling** in Montana was headed for the ESA list, but the state has made efforts toward its conservation, has seen some success, and the petitioners have not yet pushed the issue. FWP staff agree that the proposed amendments to the ESA (S1180) would assist them in obtaining additional state authority in managing listed species.

On another note, when the Klamath and Columbia stocks were listed, the **St. Mary's (and two other non-Montana bull trout stocks) were <u>proposed</u> for listing**. A final rule on these should be provided in a year, though the St. Mary's is of much less concern to Montana than the Columbia listing.

Federal Endangered Species Act listing decisions and implementation policies were one of the major multi-state legislative interests discussed at the July meeting of the **Legislative Leadership Council on River Governance** in Boise. They decided to collaboratively draft a letter to the U.S. Senate Majority Leader (Sen. Lott), encouraging Senate floor debate on S1180, **proposed amendments to the federal Endangered Species Act.** (See also the "Multi-State Activities" section for further discussion of this group.)

Potential Electrical Utility Deregulation Impacts on Water Rights

- On December 7, 1997, **Montana Power Company (MPC) announced it would sell** its 17 hydroelectric dams and coal-fired power plants and get out of the generation business. The company announced that it would instead focus on marketing, transmission, and distribution of electricity. This was in response to the 1997 legislation related to electric industry deregulation. Soon after this announcement, concern was raised regarding water rights, as MPC would be selling senior water rights along with the dams. Irrigators who had junior water rights upstream of the dams in question were concerned that the new owners would put out a 'call', requesting the irrigators to leave more water in the river, allowing more water through the dam. (input info on

potential scale of impact)

In response to these concerns, Governor Racicot met with DEQ and DNRC in February, 1998, to determine how to communicate these concerns to the Federal Energy Regulatory Comm[illegible]on. It was decided to request FERC to evaluate in its EIS process on the proposed reliscensing [illegible]MPC's Missouri River projects the impacts of such a call. This EIS is expected to be completed by late summer of 1999. The Legislature's Transition Advisory Committee on Electric Industry Restructuring has also reviewed this issue.

Relevant Multi-State Activities Related to Water

- The **Western Governors Association passed a resolution in June 1997 related to TMDLs** and states' ability to accomplish them. The resolution states that the Western Governors' Association supports the goals of the Clean Water Act. The Governors note, however, that the states do not have the resources available to accelerate TMDL program implementation deadlines required by the settlement of lawsuits filed against EPA. They urge the EPA to work cooperatively with the states to develop and implement these TMDL programs. The Governors made suggestions for the President's new fiscal year 1999 budget by allotting for: (1) realistic and stable long-term funding of TMDL projects that covers the entire spectrum of activities necessary to a achieve the CWA'a goals, (2) a holistic approach that provides funding for the many interrelated components of successful TMDL programs, and (3) recognition of the importance for coordination amount TMDL programs and other federal agencies' programs and funding sources, such as the Endangered Species Act requirements, the Farm Bill programs, the Safe Drinking Water Act, and federal land management planning requirements.

- On May 29, 1998 Senator Lorents Grosfield, Representative Bill Tash, two EQC staff members and DEQ Director Mark Simonich attended a **meeting in Denver sponsored by the National Council of State Legislatures (NCSL)**. The purpose of the meeting was to hold a dialog on important federal policies between key members of state legislatures in the EPA's Region 8 consisting of North and South Dakota, Montana, Wyoming, Utah, and Colorado and key EPA program officials charged with implementing congressional policies. EPA Administrator Bill Yellowtail, a former Montana legislator, initiated the dialog in an effort to include the concerns of state legislatures in the traditional federal to state executive branch discussions on important federal initiatives. Presentations were held on issues including new federal air standards for the regional haze rule, the federal clean water action plan, upcoming federal compliance deadlines for underground storage tanks, state environmental self audit legislation, and federal funding of state grants for federally delegated environmental programs.

  One key issue that was identified from the meeting is the need for EPA to provide accurate and timely responses to legislators during the consideration of legislative initiatives that may run contrary to federal law or environmental policy and thereby jeopardize state program delegation or **primacy**. Also, legislators want an increased involvement in the budgeting process when state agencies and the EPA negotiate performance partnership agreements and grant funding for federally delegated programs.

In the arena of water policy, EPA Regional Assistant Administrator, Max Dodson discussed President Clinton's new **Clean Water Action Plan** proposal which would budget $538 million in new resources for Fiscal Year 1999, an increase of 35%. Included in the package is an increase from $105 million to $200 million for Section 319 non-point source program grants. Also, the EPA is attempting to focus attention on water quality improvement through an increased effort in funding local watershed planning and the development and implementation of total maximum daily load standards (TMDLs) for impaired waters. A new initiative to develop a federal regulatory program that would better control runoff pollution from large agricultural confined animal feeding operations (CAFOs) is part of the proposed package.

Administrator Yellowtail and the regional legislators generally concluded that continuing a dialog on these and other issues could be beneficial in providing legislators and the EPA with a better understanding of the respective concerns of each state in the implementation and funding of federally delegated environmental programs.

- 1998 saw the creation of a new multi-state entity, the **Legislative Leadership Council on River Governance**. Spurred by concerns over excessive executive branch and federal agency treading into the policy components of state natural resource decisions, the legislative leadership of Oregon, Washington, Idaho, and Montana decided to create an ongoing forum for statute legislators to discuss criticial regional issues in a bi-partisan manner. Topics identified to be of common interest at the first meeting included; endangeres species recovery policy, water quality issues, water use, electrical deregulation, and transportation. The second meeting focussed primarily on endangered species policy. Their adopted "purpose" is;

  > "...to assert state legislative duty and authority over natural resources and river governance, and to unite states for a proactive agenda of legislative aciton and communications."

  The membership is determined by legislative leadership of each state; bi-partisan particiaption is encouraged. The group is facilitated by staff of the Council of State Governments, with state staff providing support to their respective state delegations. The Council has held two meetings so far; the next is planned for Spokane in October. Three EQC members (Rep. Cocchiarella, Rep. Tash, and Sen. McCarthy) are currently included in the six-member Montana delegation to the Council.

Relevant Federal Activities Related to Water

- On October 18, 1997, Vice President Gore announced a set of **Clean Water Initiatives** to celebrate the 25th anniversary of the Clean Water Act. This directed federal agencies to develop a comprehensive Action Plan within 120 days to improve water pollution control efforts across the country. President Clinton also addressed the new initiatives in his 1998 State of the Union address. His budget proposal for FY99 includes $145 million of new funding for a new Clean Water Action Plan to prevent polluted runoff, as well as protect and restore critical watersheds. Updates of action items and proposed budget items for the Clean Water Action Plan can be accessed at a new EPA web page: (http://www.epa.gov/cleanwater).

- Also associated with the Clean Water Action Plan, the **Environmental Protection Agency**

released for public comment a draft strategy for additional controls on animal feedlot runoff. The draft called for new water pollution control requirements, immediate inspections and increased enforcement for larger animal feeding operations. EPA intended to foster a dialogue between the regulated community and other members of the public on how to better protect public health and the environment, as well as encourage voluntary actions. News articles following the issue of this draft indicated concern among livestock owners about the implications of these new regulations. An EPA and Department of Agriculture joint draft was expected in July, with final regulations slated for November, 1998. Updated information on this plan can be accessed through the EPA web page: (http://www.epa.gov/owmitnet/afo.htm).

- In October, 1997, the **Western Water Policy Review Advisory Commission** (Commission) **presented a draft report** for public review, culminating two years of research, field investigation, public discussion, and commission deliberation. The Commission was appointed by President Clinton under the Western Water Policy Review Act of 1992. The directive of the Commission was to undertake a comprehensive review of Federal activities in the nineteen western states which directly or indirectly affect the allocation and use of water resources, and to submit a report of findings to the congressional committees having jurisdiction over Federal water programs.

  Through a process facilitated by Montana DNRC, the EQC Water Policy Subcommittee submitted comments on this draft at a November, 1997, meeting. The comments submitted indicated that the reviewers did not dispute the stated objectives in the report, but had specific suggestions related to certain aspects of the draft. An amended Commission report was sent to the President in early March, 1998, and the final report was presented in late June. The document outlined recommendations for suitable water management, new approaches to river basins and watershed governance, and other changes in federal water resource policy. Included in these recommendations is an emphasis on restoring degraded watersheds, encouraging water transfers from farms to cities to accommodate population growth and charging full-market value for water from new irrigation projects. Information on the Commission's products can be found on the Internet (http://www.den.doi.gov/wwprac).

Dam-Related Issues

- DNRC provided an update on management and **conditions of Montana's dams** at the January 1998 Water Policy Subcommittee meeting. The awareness of this topic was raised when action was taken to address the East Fork sinkhole in 1996. The state owns 39 water projects, 22 which are storage projects, as well as 300 miles of canals. DNRC hopes to continue systematically turning inactive projects over to private ownership, having already completed transfer of canal projects that are not supported by a storage structure. These projects have a projected life of between 50-75 years, and many of these are reaching the end of this span.

- A **leak was discovered in the Tin Cup Dam**, southwest of Darby in the Selway-Bitteroot Wilderness Area on May 9, 1998. This dam, constructed in 1906, is owned by Tin Cup Water and Sewer District. The earth fill dam's seepage around its outlet pipe brought the topic of Montana's dam sufficiency again to the forefront. Because of concern for public safety as well as need for funds and resources which exceeded the capabilities of the District, the U.S. Forest Service

assisted District-hired contractors in stabilizing the dam. The spillway channel was lowered 10 feet and a rock buttress was constructed on the downstream side of the dam. Phase 2 of this project began in late August and is continuing.

Land Use-Related Issues

- The **stream access** issue received some coverage in the papers during spring and summer of 1997. Some property owners in the Ruby River area reportedly began raising funds to finance a legal challenge of Montana's stream access law in federal court. Advocates of stream access formed a counter-challenge group, and raised awareness of the issue by holding a "protest float" on the Ruby. The issue was twofold: stream access in general, and the more specific concern of access to rivers at County bridges. In June of 1998, FWP issued a request for an Attorney General's opinion on stream access from road rights-of-way at bridges. As of July, 1998, the opinion had not been issued nor (regarding the broader issue) was a legal challenge filed. (On a related topic, the counter-challenge group is currently discussing with sportsmens' groups, legislators and FWP, the viability of proposed river management legislation similar to that introduced to the 1997 legislature.)

- On March 30, 1998 a **major landslide entered the Blackfoot River**, blocking 200 yards of river two miles upstream from River Junction campground, southeast of Ovando. The landslide involved 15 acres owned by a timber company. It was later determined by DEQ officials that the landslide was caused naturally, and not directly by human activity. State officials planned to stabilize the slide by planting willows and other riparian greens, but otherwise left the landslide alone. Meanwhile, the state alerted river floaters by placing warning signs at access points upstream from the landslide.

- During the 1997 legislative session, the Montana Consensus Council was asked by a group of legislators to assess trends, issues, and concerns related to development pressure and management along **Montana's stream corridors**. Several EQC members were among the 80 individuals interviewed for the situation assessment which followed. In the process of this situation assessment, it became apparent that various entities have different definitions for stream corridors.

  The Consensus Council concluded in its July 1998 situation assessment that a statewide consensus building process would not be appropriate at this time because there lacks agreement in opinion over; (1) the feasibility of consensus, (2) the scope of related issues needing to be addressed under stream corridors as a whole, and (3) the urgency of addressing stream corridor issues. Nevertheless, consensus building in general was endorsed; perhaps such a process could be invoked when more agreement can be garnered, or when subcommittees are working on specific issues within the larger stream corridor picture.

  Based on the inquiry, the Consensus Council suggested three options for how to proceed; (1) rely on existing voluntary, incentive-based efforts, (2) seek new partnerships, and (3) develop legislative proposals. The situation assessment was made available for public comment until August 7, 1998, and Consensus Council staff are continuing to seek feedback from the public and other interested entities through early October.

- Staff representatives of Montana's congressional delegation, as well as state and federal agency representatives met in May, 1998, to hear concerns from landowners regarding the Army Corps of Enginners' **permitting process for river related (e.g. bank stabilization) projects on the Yellowstone River**. One item discussed was the Governor's Yellowstone River Task Force's effort to lead a cumulative effects study on the River. As of July, 1998, there had been no change in the permitting process.

- The filing of Chapter 11 bankruptcy protection by a Montana mine in 1998, raised the issue of **bonding adequacy for mine reclamation**, and the relationship between bonds and water-related commitments at Montana mines. (EQC staff have requested information from DEQ on the status of water quality-related financial commitments within the bonding negotiations.)

Fishery-Related Issues

- Montana's **fish eradication policy** became an issue in Spring 1998, when an eradication project proposed to eliminate non-native fish and introduce genetically pure westslope cutthroat trout (and possibly other native fish species) to a portion of Montana's Cherry Creek, a tributary to the Madison River. The proposed action was a component of the statewide fisheries management plan (i.e. "Fisheries 2000"), and several public meetings were held to discuss the proposal. In July 1998, following the meetings, a decision notice was released announcing the initiation of the fish eradication plan. In this notice, it was explained that the rotenone formulation to be used in the Cherry Creek project would be different than the formulation used in Lake Davis, California, where there were concerns of ground water contamination. Elimination of non-native fish was set for August 11-16th. This project was stopped at the last minute on August 11, by the owner of land where most of the fish-kill was planned. He explained he was unaware that the eradication efforts were set to begin this year. He felt there remained several controversial issues which needed to be addressed before moving forward with the project. As a result of this decision, poisoning of non-native trout was canceled for Cherry Creek in 1998.

- As of early 1998, nearly 300 individual waters have been tested in Montana, and the **whirling disease** parasite detected in over 60 individual sites. Current research of the disease focuses on the effects of water temperature on transmission of the disease, trout species susceptibility, and the possibility that light initial infections of the disease may provide resistance to more severe cases. In addition, the economic impacts of whirling disease are being investigated, and disease monitoring in Montana's waters continues. Whirling disease was found in the Blackfoot River in fall, 1997. This discovery was made accidentally when several cages of young rainbow trout in a metals-pollution study were found to have mild to severely infected stages of the disease. Previous tests of the Blackfoot indicated that this disease was not present in either 1995 or 1996. Updated information on whirling disease in Montana is available at two web sites: Montana's Whirling Disease Task Force web page, "http://whirlingdisease.org/index.htm" and Montana's Water Center web page, "http://btc.montana.edu/watercenter/docs/whirling.html".

- FWP is pursuing a unique planning process to create a guide for managing the **fisheries of Canyon Ferry, Holter and Hauser reservoirs**. A unique aspect of this planning is that a working group guided by the Montana Consensus Council, and consisting of upstream and

downstream fishing and business interests, will be collecting data, holding public forums and providing input to the department in the initial stages of the planning process, before a draft plan is even created. A controversial issue which will be addressed by the group is the manner in which Canyon Ferry and similarly affected Holter and Hauser reservoirs should be managed for walleye and trout. Currently, the interim Canyon Ferry plan treats walleye as an illegally introduced species. Public information meetings were scheduled for July 15 and mid-September.

- The **Bull Trout Restoration Team** (established by the Governor in 1994) continued its work in 1997 and 1998, to produce a restoration plan for bull trout. The Team's Scientific Group provided guidance on technical issues, including; habitatt requirements and land use impacts, removal and suppression of intriduced species, and the use of hatcheries and transplants in restoration. (EQC staff have requested an update on the activities of the Team(*See update in Endangered Species category*).

(suggestions for other "important developments" from 1997-98 related to Montana's water resources that should be communicated to the Legislature?)

AGENCY OVERSIGHT RELATED TO WATER RESOURCES

EQC Oversight Activities

The EQC, in its role of general oversight of state agencies' programs related to water and other natural resource issues, conducted several inquiries into program implementation at various levels, including:

- Requesting DEQ respond to recent issues related to reorganization of the impact analysis bureau, mid-point progress on compliance and enforcement reporting, and other topics;
- Fulfilling a public request for a Council/Water Policy Subcommittee Co-Chair field trip to review water- and mine-related concerns in the Hilger area;
- Tracking (along with the Growth Subcommittee) DEQ's efforts to address jurisdictional issues in the review of subdivisions;
- Responding to an outstanding request to look into water right and subdivision issues in the Gallatin Valley area; and
- Implementing the first round of natural resource agency compliance and enforcement reporting, newly required via passage of HB132 in 1997.

In addition to these activities, some topics from staff updates were related both to the Council's broad oversight responsibilities, as well as potentially to water resources. Notably, the Subcommittee expressed concern over the Interim regarding **DEQ's loss of its subdivision review staff**, and noted that there appeared to be continued issues regarding the program's ability to keep up with programmatic and statutory requirements in this area.

Regarding the Gallatin Valley water rights case study, the Subcommittee used one set of concerns to investigate the interaction of four sets of state policies; water rights and permitting, 310 permitting, MEPA, and subdivision review at the local and state levels. EQC staff provided a chronology of issues related to state and local policies in the situation, and the Subcommittee provided a forum in June for the requestor and related agency staff to air their views. Issues, options, and Subcommittee/agency actions related to this case study are described in Figure __ (next page).

Figure __. Issues, Options, and Subcommittee Actions Related to a Case Study of Water Rights and Subdivision Issues in the Gallatin Valley

Issues Identified	Options Discussed	Action Taken
1) MEPA played a less than helpful role in the water use permit process; there is a heavy reliance on the objector process to elicit information and analysis; MEPA now requires an assessment of impacts to private property (e.g. water rights)	Option to recommend that DNRC water rights staff work with EQC staff to identify mechanisms and means to make the MEPA process associated with water permits more useful and credible.	DNRC has requested MEPA training from EQC staff; training is tentatively scheduled for November, 1998, and will include dialogue on how to better integrate MEPA in the water use permitting process.
2) There is no prohibition to realigning a waterway, except for the general prohibition against "adverse effect" downstream; the 310 process does not include a review of potential effects on water rights.	Option to recommend that staff develop legislative options for prohibiting realignment of a waterway until any relevant downstream water rights are considered.	Option not pursued.
3) Subdivision development occurs before water rights are completely secured	Option to direct staff to evaluate existing permitting statutes, and proposals for "coordinated permitting:, to see where the gaps are regarding approval of subdivision development before water rights are assured. If there is insufficient existing authority to ensure a viable project (or one consistent with state or local permit conditioning), legislative options could be developed.	EQC staff effort ongoing.
4) There was conflicting evidence as to the availability of the requested amount of water, raising concerns about how DNRC's evidentiary test (i.e. "preponderance of evidence") is carried out in deciding whether to issue a permit.	Option to request DNRC provide a written summary of their interpretation of the "preponderance of evidence" evidentiary test, including examples of when flows are insufficient to meet the test, and a description of how uncertainty is incorporated.	DNRC provided written response (available from EQC office); no further action taken.

Figure __. Issues, Options, and Subcommittee Actions Related to a Case Study of Water Rights and Subdivision Issues in the Gallatin Valley

Issues Identified	Options Discussed	Action Taken
5) There are general issues related to ensuring water right/ditch access in areas being subdivided.	Option to direct staff to evaluate the proposed subdivision-related legislation from the Montana Water Resources Association to see if the proposal resolves issues identified in this case study, and/or whether additions or changes could be made to it to more fully address the issues.	The Subcommittee recommended MWRA, Board of Realtors, and Department of Commerce staff meet to discuss the MWRA irrigation/subdivision legislative proposal, determine if legislation is needed to address issues, and if so, whether the proposal needs revision. They also recommended the group discuss whether a mandatory disclosure would assist in resolving issues, and to consider subsection (6) of the proposal (situations where it is best to remove water rights before subdividing).
6) Additional general information is needed related to water rights and the need to protect them.	Option to endorse the efforts of the Gallatin area agencies to develop a combined water-related project application list, and determine whether water rights are appropriately addressed in that process. Also an option to suggest that water rights information in *A Guide to Stream Permitting in Montana* discuss prohibitions to adversely affecting a downstream water right holder and how to access water right information. The Subcommittee also noted that the "Code of the New West" publication could assist in this regard, and staff could check with department of Commerce to determine whether the publication they are contemplating would satisfy this need.	The Subcommittee endorsed the cooperative efforts in the Gallatin area to develop a combined water related project application list. DNRC will pursue incorporating water right information into the next publication of the *Guide to Stream Permitting*. Staff is still checking on Commerce's efforts related to a "Code of the New West"-type publication. The Subcommittee also endorsed the MACD effort to provide Board of Realtors-accredited courses related to water and rural issues. They discussed whether such training should be mandatory, but declined to make such a recommendation.
7) Even if water use permits are conditioned and measuring devices are required, concerns may continue if there is limited agency oversight or monitoring of whether conditions are met.	Option to request an update from DNRC regarding rule proposals related to measuring devices, to determine whether concerns over monitoring/reporting of permit conditions are addressed to the satisfaction of the Subcommittee.	DNRC staff reported that the Task Force they convened to discuss potential rules for measuring devices recommended the department not develop rules, but follow existing informal policy. No further Subcommittee action.
8) (same issue as above)	Option to check with other states regarding when water commissioners are invoked, and funding mechanisms to do so. The results could be compared to Montana's system to see if any opportunities evidenced themselves.	Attendees at August Subcommittee meeting provided some information on other states and how Montana differs. Subcommittee decided not to pursue.

Figure __. Issues, Options, and Subcommittee Actions Related to a Case Study of Water Rights and Subdivision Issues in the Gallatin Valley

Issues Identified	Options Discussed	Action Taken
9) The case study provided an opportunity to learn about water permitting and investigate related policy issues "on-the-ground".	Option to document issues and results in *Water Policy Report to the Legislature*.	Done.
10) The water use permit in this case referenced only the higher of two seasonal flows, due to a flaw in the computer system.	Option to recommend the DNRC make correction of its computer system (to enable seasonal flow restrictions on a water permit to show up on the Permit) a priority for staff attention.	DNRC notes the problem was not with the computer. The permit was reissued with both flow amounts.
11) It appeared in this case that existing water right information was not introduced into the deliberations until the objector process (required with application).	Option to recommend that enhanced access to the computerized water rights system be made a priority, and request an update from representatives of the Water Information System and DNRC on obstacles and opportunities for doing so.	DNRC staff note this is a high priority for them and described recent efforts. No further Subcommittee action.
12) There may be other options to address issues.	Option to direct staff to forward options and background to others to gather additional suggestions.	The Subcommittee did not wish to pursue further.
13) Record keeping could be improved, and there was a mistake on the permit (see also Issues #10 and 11).	Option to investigate whether a Legislative audit of the water permitting program had ever been done.	Audit staff do not recall any audit of the water permit program.
14) If the fish and wildlife flow applied for was really to fill a fire protection pond, shouldn't the process acknowledge that? Is that type of use non-consumptive, as required by the Upper Missouri Basin closure?	Option to request information from DNRC on the relationship between dry hydrants, non-consumptive use, and water rights, including whether fire flows are non-consumptive.	DNRC responded (available from EQC office). No further Subcommittee action.
15) Current statutes require an analysis of potential impacts to "agricultural water use systems"; is the implementation of this requirement adequate?	Option to direct staff to check with the department of Commerce to see what assistance/guidance they provide to local governments regarding assessing impacts on agriculture under the Subdivision and Platting Act and see if there is room for improvement.	Guidance has not been provided since statutory change was encoded (1995), but it planned to be issued after the 1999 Session. The department feels existing mitigation authorities are broad. (See also actions under issue #5.)
16) Additional enforcement authority may be needed, to relieve the need of a water right holder to pursue issues in court to protect water rights.	Option to investigate additional enforcement authorities for DNRC or others related to water rights and conditioned water permits. This could also involve reviewing the "complaint" process to see if that could be improved.	Subcommittee did not wish to pursue.

General Council Conclusions Regarding Oversight

The Subcommittee discussed the pros and cons of **Legislative oversight of site-specific natural resource issues.** On the one hand, it is important to be able to view issues "on-the-ground", and discuss real issues with the entities that are involved with them. It also provides an opportunity for investigating the interaction (or lack of) multiple policies on Montana citizens; a typical legislative discussion may not deal with interacting policies. However, the Legislature must be very careful in which "case studies" they choose to pursue, as they cannot respond to all, and fairness is a concern (see Recommendation #__).

(Any other conclusions or recommendations related to oversight activities?)

Recommendation #__:
The next Environmental Quality Council should develop a policy for the 1999-00 Interim regarding when and how to respond to requests for site-specific Council oversight of natural resource issues, especially those that would involve Council member travel to a specific site. Consideration should be given to:

- Whether the requestor has participated in available processes to address concerns
- Whether there appear to be "real" policy issues that may be applicable to other Montanans and solvable;
- Whether all parties subject to an issue or concern are willing to and available to participate in a discussion
- Whether Legislative involvement could affect or be affected by pending litigation in the matter;
- Whether EQC and/or agency staff are available to assist in distilling facts and issues;
- Ensuring a standard approach for how to raise such issues to the Council.

COMMUNICATING WITH THE PUBLIC

The following activities fulfilled the EQC's water-related statutory mandate to "communicate with the public" on water-related topics:

- EQC staff have partnered with others to produce guide books to Montana's water quality and water quantity policies, respectively. They are free to those interested. A MEPA guide book was also just produced, and the Subcommittee's *HB546 Oversight Report* is part "primer" on this major revision to Montana's water quality program.
- This Interim marks the first for the Legislative Services Division (and EQC) information being available on the Internet.
- Council and Subcommittee agendas are posted to the computerized State Bulletin Board, and mailed to the Council's 250+-person mailing list two weeks in advance of meetings.
- Council staff regularly prepare responses to information requests from Legislators, agency staff, and the public.
- The Council and its Subcommittees held three out-of-town meetings, in Missoula, Great Falls, and Dillon.
- The Council invited interested persons to join their HB546 Implementation Tour in the Upper Beaverhead Valley in June.
- All Council/Subcommittee meetings are open to the public. Public comment is encouraged.
- The Subcommittee/Council chose to respond to certain issues raised by members of the public; communication was maintained with those raising the issues.
- Many Subcommittee/Council meetings involve panel discussions, targeted commentors, previous solicitation of options from known interested parties, and other mechanisms to solicit and incorporate public comment into Council deliberations.

- EQC staff and members attend various non-Council meetings and functions and provide relevant information regarding water policy and resources when requested. When resources permit, EQC staff respond to requests to moderate or speak at conferences and seminars related to water policy.

- This report will be made available for a three-week public review, and the final version will be made available free of charge to those wishing copies.

4. THE EQC'S PROGRAM-SPECIFIC MANDATES

Section 85-2-105(3), MCA requires the Council, "on a regular basis", to:

> (a) analyze and comment on the **state water plan** required by 85-1-203, when filed by the department;
> (b) analyze and comment on the report of the status of the state's **renewable resource grant and loan program** required by 85-1-621, when filed by the department;
> (c) analyze and comment on **water-related research** undertaken by any state agency, institution, college, or university;
> (d) analyze, verify, and comment on the adequacy of and information contained in the **water resources data management system** maintained by (NRIS) under 85-2-112; and
> (e) **report to the legislature** as provided in 5-11-210 (*emphasis added*)

The following describes the information generated in response to the Council's program-specific water policy mandates. This section of statute requires the Council to "analyze and comment" on four water-related programs and report to the Legislature. Each of the four topics was the subject of an agency update to the Council during the 1997-98 Interim. Each presenter was asked to provide the following information within their update:

- **history/mandate (how you got to where you are/what it is you're supposed to accomplish)**
- **major accomplishments/current status (where you are)**
- **goals (where you're headed)**
- **challenges and issues (specifically those related to state policy)**
- **requests of the Council/potential Council role (if any) in future efforts**

Relevant components of each of these updates are provided below, along with what "analysis and comment" the Council has made so far. Each writeup also includes a series of staff- or presenter-generated options for further Council analysis and comment, and a space for any recommendations made.

(Please Note: **These writeups are intended as intermediate versions -- to stimulate further Council analysis and comment, and any recommendations that may be relevant. It is intended that, based upon full-Council review in September, and resulting conclusions and recommendations, these sections could be shortened, to make their overall treatment more succinct.)**

STATE WATER PLAN

Section 85-2-105(3), MCA, requires the EQC to:

> (a)...analyze and comment on the state water plan required by 85-1-203, [MCA] when filed by the department...

Section 85-1-203, MCA, also describes necessary components and procedures of the State Water Plan process:

(2) The department shall formulate and adopt and amend, extend, or add to a comprehensive, coordinated multiple-use water resources plan known as the "state water plan"... The state water plan must set out a progressive program for the conservation, development, and utilization of the state's water resources and propose the most effective means by which these water resources may be applied for the benefit of the people, with due consideration of alternative uses and combinations of uses. Before adopting the state water plan or any section of the plan, the department shall hold public hearings in the state or in an area of the state encompassed by a section of the plan if adoption of a section is proposed.
(3) The department shall submit to the environmental quality council...and to the legislature at the beginning of each regular session the state water plan or any section of the plan or amendments, additions, or revisions to the plan that the department has formulated and adopted.
(4) The legislature, by joint resolution, may revise the state water plan...
(7) In developing and revising the state water plan as provided in this section, the department shall consult with the environmental quality council established in 5-16-101 and solicit the advice of the committee in carrying out its duties under this section.

Background

From 1987 to 1994, the Department of Natural Resources and Conservation (DNRC) used a tightly structured planning process to develop sections of a statewide water plan. The collaborative, consensus-based planning process consisted of a governor-appointed Water Plan Advisory Council (WPAC), public meetings to identify relevant issues for study, broad-based steering committees appointed by the WPAC to analyze the identified issues, public hearings on the steering committee and WPAC recommendations, and Board of Natural Resources and Conservation adoption of the final plan sections. This phase of the water planning process produced chapters on the following issues: instream flow, water storage, the connection between water quantity and water quality, drought management, agricultural water use efficiency, water resource data management, and the relationship between state water rights and the authority of the Federal Energy Regulatory Commission.

The DNRC decided that during the 1993-1994 Interim, instead of analyzing a specific water issue, it would analyze the process itself and therefore created the State Water Plan Review Working Group. Using extensive public involvement, the Working Group produced a 17-point decision summary outlining suggestions on the state water plan process. The primary recommendation was that DNRC continue developing the State Water Plan, addressing both statewide and watershed issues. The DNRC approved the 17-point decision summary regarding the water plan evaluation and the Legislature's Water Policy Committee endorsed this document and the implementing legislation during the 1995 session. The legislation, HB 192, failed. However, its concept of removing the Board of Natural Resources and Conservation (BNRC) from the state water planning process was, in effect, approved by the passage of SB 234 that eliminated the BNRC altogether.

Overall since 1987, eight bills have evolved from the State Water Planning process; seven were passed into law. The remaining bill, which ensures compliance with existing water well construction standards, was based upon protecting the customer. The Board of Water Well contractors and the drillers opposed the bill and it died.

Mr. Rich Moy, Chief of the Water Management Bureau in the Department of Natural Resources and Conservation (DNRC), presented an update on the State Water Plan and the DNRC's activities regarding water policy at the March 12, 1998 full committee meeting. Mr. Moy stated that there are currently three

Water Plan issues at varying stages of development: (1) development of a comprehensive ground water plan, (2) a wetland strategy, and (3) integration of surface and ground water management. The first issue is the closest to completion, and will likely be considered for legislation during the 1999 term. The second issue is further from completion and will not be covered during the 1999 legislative term. Finally, the third issue is still in the discussion stage and will also not be covered during the 1999 term.

Mr. Moy updated the Council on current focus areas of the State Water Plan and other efforts of his bureau:

- Currently most of the DNRC's effort has been spent working in local watersheds. Staff are actively involved in the following watershed efforts: the Bitterroot Water Forum, the Upper Clark Fork Steering Committee, the Big Hole Watershed, the Flathead Basin Commission, the Sun/Muddy Creek Task Force, the Blackfoot Challenge, Upper Yellowstone Task Force, and Upper Tenmile Watershed. A variety of services are available to these groups as detailed in a summary distributed by Mr. Moy at the meeting (**Appendix**).

- The Montana Watershed Coordination Council (MWCC) has been created to assist in ensuring that the natural resource agencies work together to provide more effective assistance at the local watershed level. A 1995 interagency MOU defines goals and procedures for watershed-related interagency coordination, and cites the Coordination Council as an important player in this coordination.

- DNRC is working on several projects in river basins, including work on the master manual for the Missouri River Basin Association, assisting the Northwest Power Planning Council on issues affecting the Columbia River Basin, and producing GIS data in several river basins. GIS data is currently assisting decision-making in the Milk River basin.

- DNRC has recently become involved in providing coordination for two rural water supply systems, the Fort Peck Rural Water District and the Rocky Boy Central Pipeline. Mr. Moy stated that continued DNRC involvement is in question.

- DNRC wrote grants and obtained funding for several groups, including a TMDL grant for the Flathead, grants for return flow studies for Flint Creek and the North Fork of the Blackfoot, and an arsenic study for the Missouri River Basin.

- DNRC is working in water education, coordinating with the Montana Watercourse to produce seminars, publications, and resource documents.

- DNRC has spent much time studying drought and providing staff support to the Governor's Drought Advisory Council.

Mr. Moy explained to the EQC that because most of the State Water Plan focus areas are dedicated to assisting local watershed groups, there is no specific document summarizing this work. However, there are technical reports available. Mr. Moy added that no specific State Water Plan report has been submitted to the Legislature for the last two Sessions.

Water-Related Challenges facing the DNRC (as presented by Mr. Moy) include:

(Please Note: The following topics are not specific to the State Water Plan. However, since the Plan has become broader in focus, and because these challenges may be of interest to the Council, they are provided below. They can be addressed elsewhere in this report, if the Council wishes.)

- **Meaningful and accurate adjudication.** Questions exist as to the accuracy of the final decrees. The issue is how accurate an adjudication does the Legislature wants to see? DNRC has just completed their "comments" on claims in the Bitterroot drainage -- how will the Water Court consider these comments, and will they influence the Court's decisions?

- **TMDLs - how they relate to water rights.** A lot of "impairmen" (e.g. causes for water bodies to be placed on DEQ's "303 (d)" list), are related to non-point source pollution. Many return flows from irrigated agriculture create non-point pollution. The statute states there may be no effect on water rights, so there needs to be some assurance non-point issues can be addressed while protecting water rights, specifically those dealing with flood irrigation. (Note: This issue is included as a "policy consideration" in the August, 1998, working draft of the *HB546 Oversight Report.*)

- **The need for funds to support the administrative costs of local watershed groups.** As groups of local people begin solving local problems, these organizations are becoming effective methods of governance. About 40-50 groups are in various stages of development in Montana. About $5,000-$7,000 per group is an estimated figure needed to cover their administrative costs. (Note: This issue is also included as a "policy consideration" in the August, 1998, working draft of the *HB546 Oversight Report.*)

- **Water quality and ground water pollution.** These issues need to be monitored as more people move into Montana's mountain valleys.

- **Funding for rural water supplies.** Funding is lacking, and there is little help from the federal government.

- **Statewide wetland strategy.** There is an issue regarding how to develop a statewide wetland strategy that is effective, and provides incentives at the local level to help agricultural users and others participate in wetland conservation.

- **Influence on large federal reservoir operations.** Another issue is how the state can have more influence on the operation of large federal reservoirs, specifically Hungry Horse and Libby reservoirs. Mr. Moy noted that there is discussion that the Northwest Power Planning Council jurisdiction should be expanded, so that states could have more control over how these reservoirs are operated.

- **Infrastructure.** Infrastructure will continue to be an issue for the next 10-15 years. There is a need to rehabilitate infrastructure at both private and federal dam and irrigation projects. According to Mr. Moy, this is a major issue.

- **Federal Energy Regulatory Commission (FERC) related issue.** With Montana Power selling its hydropower facilities on the Missouri River, a DNRC concern (as a water supply entity) is the effect a new owner might have on existing water rights. DNRC has been working with the Governor on a position to ask FERC to consider in their final EIS the effects of a call on junior water users. Montana Power has never made a call on the junior water users. Since the priority dates on some of the power projects are very early (e.g. 1898, 1905, 1908, etc.), if MPC or its successor starts making calls, there could be significant impacts on the junior water users. Local economies have evolved over the last 50-60 years around these water projects.

  DNRC is also looking at the same issue with Washington Water Power (WWP), which is a non-Montana-based utility, with a huge water right (50,000 cfs from the lower Clark Fork Basin). It is, by far, the largest water right in the State of Montana -- 2.5 times larger than any other Montana water right, and 5 times larger than any water right on Montana's portion of the Missouri River system. They have a very controlling effect on water use, but their right is somewhat junior (i.e. 1950, 1951, and 1959 totaling 35,000 cfs, and 1976 for an additional 15,000 cfs). DNRC is trying to work with WWP to allow them to continue operating as they have operated historically (i.e. not to call junior water users as of the date that FERC issues its new license). DNRC has been encouraging WWP to begin objecting to new provisional water use permits that would adversely affect their water right. Historically WWP had not objected to any permits.

- There is a need for a **better defined comprehensive statewide surface water quantity and quality database.** (Clarifying information requested from DNRC staff...)

Council Analysis and Comment

Topics discussed by the Water Policy Subcommittee following this presentation included:

1. A member of the Subcommittee asked why the failure of the proposed portion of the State Water Plan dealing with oversight of proper well construction standards was not listed as a concern. Mr. Moy responded that he did identify ground water contamination as a concern, and that the intent of the bill that didn't pass was to protect the ground water consumer.

   This same Subcommittee member asked whether there have been any effects of "unregulated wells" on the quality of surface water. Mr. Moy responded that there are problem areas; primarily the more populated valleys, such as Missoula Valley. He added that the statutes allow for the creation of local water quality districts; some are in existence, others are being considered. For small communities or farm lands, ranchers and farmers need to become more proactive to protect their water quality.

   The Subcommittee member asked how a watershed group could protect their ground water without being able to regulate how ground water wells were constructed. Mr. Moy responded that a group could look at the force of statute (e.g. the Controlled Ground Water Area statute or creation of a water quality district). They could also choose to be more actively involved in subdivision review, could work with Montana Bureau of Mines and Geology (MBMG) on their ground water

assessment and more site-specific ground water studies (to build a case that is an issue). They could also seek to close a basin to ground water appropriation permits. Even though local watershed groups may not have authority, the people on a group can represent enough of a power base that they can influence decisions and affect what happens in the watershed.

Another Subcommittee member asked whether Mr. Moy thought that even though the well-related legislation did not pass -- was there enough on the books to protect the customer? Mr. Moy responded in the negative, but noted the issue was sensitive, was a hard fight in the Legislature, but DNRC lost.

Mr. Moy commented that the well-related bill that passed in the Upper Clark Fork basin last legislative session was a positive step toward better ground water protection. Here, the burden is on the applicant to hire a ground water hydrologist and show there will not be an impact on surface water. A Subcommittee member agreed that this shift in the burden of proof was a good piece of legislation. He added that well-head protection laws are intended to protect from the co-mingling of ground water and surface water; it is a violation to use a well as a conduit for surface waters.

2. The question was raised by a Subcommittee member whether watershed groups can really emerge, given that they are primarily voluntary and do not have financial resources and legal expertise at their disposal. Mr. Moy responded that there are resources available to these groups. DNRC attempts to help any interested groups. If DNRC is unable to help, they will request assistance from DEQ, Conservation Districts, or NRCS. Mr. Moy felt government was becoming more effective in assisting these groups solve their problems.

3. Regarding Mr. Moy's request, one member felt that the Subcommittee should recommend to the full Council that the Subcommittee serve as the Advisory Committee for the State Water Plan chapter that is being drafted. Later in the meeting this suggestion was revisited, and other Subcommittee members concurred.

As a result of the proposed decision to recommend the Water Policy Subcommittee to the Council to serve as the State Water Plan Advisory Committee, Mr. Moy commented that the issue he would be working with the Subcommittee would be the Comprehensive Ground Water Plan. One Subcommittee member questioned whether the frequency and consistency of membership of the EQC Subcommittee made it an appropriate choice. Mr. Moy believed it did. Another member commented that this was an opportunity to better coordinate between water quality and water quantity. The Subcommittee began in this capacity at their June meeting. (Comments on the Chapter to be summarized later...)

The Water Policy Subcommittee as State Water Plan Advisory Committee for 1997-98. As noted above, the Water Policy Subcommittee granted a request by DNRC that they serve as the State Water Plan Advisory committee for the 1997-98 Interim. This involved the following steps and results:

(EQC staff to summarize efforts/comments/questions related to Ground Water Chapter. The Subcommittee and/or Council may wish to insert recommendations and/or comments on the result, depending on progress achieved by working group/DNRC.

Options for Further Council Analysis and Comment on the State Water Plan

1. Regarding composition and oversight of the State Water Plan (SWP), the Council and/or Water Policy Subcommittee could continue to serve as the SWP Advisory Committee. Presuming such Subcommittees were created by subsequent Council's, they could serve as the focal point for review and comment in the development of the plan sections, but the full EQC involvement would be needed for final discussion and approval of each plan section.

2. The EQC or the Subcommittee could designate water policy issues which DNRC could take through the State Water Planning process.

3. The Governor's MOU which was signed by the directors of 22 state and federal agencies is designated to enhance effective and efficient coordination among these agencies with the goal of providing better service and assistance to local watershed groups in Montana. The MOU is being implemented, in part, by the Montana Watershed Coordination Council which consists of professional staff from these above agencies. The key ingredient missing from the implementation of the MOU is the active coordination and involvement of the directors that signed the MOU and representatives of the Governor's Office. The SWP Subcommittee and the EQC could address this need.

4. As suggested at the Great Falls Watershed Conference in December, funds are needed to cover administrative costs of local watershed groups. Funds are available for projects, but not general operations. (See also related "policy consideration" in *HB546 Oversight Report.*)

5. The SWP Subcommittee and the EQC could provide a better focus for becoming more proactive in preventing water problems from developing. Because of cut backs in funding and staff, DNRC has become very reactive to existing problems.

6. EQC could recommend any of the identified challenges for further evaluation. (Include this in number 2 of the Options, LH)

7. EQC and the SWP Subcommittee could propose that Best Management Practices (BMP) be developed for irrigated agriculture to help mitigate non-point sources of pollution. (See related "policy consideration" in *HB546 Oversight Report.*)

Council Recommendations

1. The Ground Water Chapter currently recommends the EQC conduct a study of potential incentives to redevelop contaminated properties. At their September 4th meeting, the Subcommittee supported this idea, but was not certain whether to; 1) allow the Ground Water Chapter to recommend this without any EQC response this Interim, 2) recommend to the next EQC that such a study should be initiated, or 3) recommend a study resolution for the 1999 Legislative session. They decided to wait until hearing (on September 10) what progress was made by the Working Group on this topic (since they hadn't yet discussed it in detail), then to ask the Council for any counsel regarding the options. They will also hear one more update on the progress of the Plan

chapter at their Subcommittee meeting in October.)

2. (others?...)

3.

4.

RENEWABLE RESOURCE GRANT AND LOAN PROGRAM

Section 85-2-105(3), MCA, requires the EQC to:

> (b) analyze and comment on the report of the status of the state's renewable resource grant and loan program required by 85-1-621, [MCA] when filed by the department...

The purpose and policies of Montana's Renewable Resource Grant and Loan Program are described in statute as follows:

> **85-1-601. Purpose and policies.** (1) The legislature finds and declares that in order that the people of Montana may enjoy the benefits of the state's water and other renewable resources, the state shall establish this long-term renewable resource grant and loan program providing financial and administrative assistance to private for-profit, private, nonprofit, local government, state government, and tribal government entities for renewable resource grant and loan projects.
> (2) The purpose of the renewable resource grant and loan program is to further the state's policies, set forth in 85-1-101, regarding the conservation, development, and beneficial use of water resources and to invest in renewable natural resource projects that will preserve for the citizens of Montana the economic and other benefits of the state's natural heritage.
> (3) The legislature recognizes the value of Montana's renewable resources; therefore, it is appropriate that a portion of the taxes and other revenue from nonrenewable resources be invested in the replacement of nonrenewable resources with the development of renewable resource projects that will continue to provide tax and other revenue and will preserve for the citizens the economic and other benefits of the state's natural heritage.
> (4) The conservation, development, management, and preservation of water and other renewable resources are high priorities because a large portion of Montana's present and future economy is based either directly or indirectly on the wise use of these resources.
> (5) Developments supported by this part may not significantly diminish the quality of existing public resources, such as land, air, fish, wildlife, and recreation opportunities.
> (6) This renewable resource grant and loan program supports, in part, the implementation and development of the comprehensive, coordinated, multiple-use water resources plan known as the "state water plan". In making funding recommendations for grants and loans, the department shall give preference to projects that will implement state water plan priorities if, in all other respects, the proposed projects are equal in public benefit and technical feasibility.

The objectives of Montana's Renewable Resource Grant and Loan Program are described in statute as follows:

> **85-1-602. Objectives.** (1) The department shall administer a renewable resource grant and loan program to enhance Montana's renewable resources through projects that measurably conserve, develop, manage, or preserve resources. Either grants or loans may be provided to fund the following:
> (a) feasibility, design, research, and resource assessment studies;
> (b) preparation of construction, rehabilitation, or production plans; and
> (c) construction, rehabilitation, production, education, or other implementation efforts.
> (2) Projects that may enhance renewable resources in Montana include but are not limited to:
> (a) development of natural resource-based recreation;
> (b) development of off stream and tributary storage;
> (c) improvement of water use efficiency, including development of new, efficient water systems, rehabilitation of older, less efficient water systems, and acquisition and installation of measuring devices required under 85-2-113; and development of state-tribal, state-federal, and state-tribal-federal water projects; and

(d) advancement of farming practices that reduce agricultural chemical use.
(3) The renewable resource grant and loan program is the key implementation portion of the state water plan and must be administered to encourage grant and loan applications for projects designed to accomplish the objectives of the plan.

The statutes also require the department to solicit and consider the views of interested parties in its evaluation of proposed projects (85-1-611, MCA). The DNRC is required to submit a copy of the report to the EQC, formerly the Water Policy Committee. The Council must analyze and comment on the report when filed by the DNRC.

Background

Originally, the DNRC filed its report just prior to legislative sessions, after the Water Policy Committee had concluded its interim business. For this reason, historically, the Committee did not analyze or comment on the report.

The 1991-1992 Water Policy Committee recommended in its report to the 52nd Legislature that the DNRC submit its draft report to the Committee at an earlier date. The DNRC complied with this request and submitted a draft report to the Committee at its October, 1994 meeting. The Committee recommended that next interim's Committee, now the EQC, continue to work towards efficient and earlier participation in the review and prioritization process.

Additionally, the Committee remained concerned about the continued use of trust funds, through the grant process, to fund general operating expenses of state agencies. The Committee recommended that the 1995-1996 Committee address this issue if the 1995 Legislature did not take substantive action. HJR 28, which requested a study of RIGWAT issues, failed during the 54th Legislature.

At the June 26, 1998 Full Council meeting Mr. John Tubbs, chief of the Resource Development Bureau in the DNRC, updated the Council on the Renewable Resource Grant and Loan Program and the 62 applications that they have received for the 1997-1998 biennium. Mr. Tubbs reported that the DNRC has changed the format of the application process to allow sufficient time for Council review before the legislative session.

Several types of projects in the Renewable Resource Grant and Loan Program are not subject to the legislative process. One of these, the Emergency Grant and Loan Program, covers projects which would likely incur damage to property or liability to the project's sponsor, if they were required to wait for legislative review. Each biennium, DNRC has requested $125,000 of appropriation authority (funded through interest monies from the RIT tax) to support this program. As emergencies arise, DNRC is able to respond with grant money, as well as loans. The Emergency Grant and Loan Program has $10 million in emergency loan authority. This biennium, an emergency grant was issued for the City of Harlem to address a water intake facility pipeline collapse. DNRC also issued one emergency loan for the East Fork Rock Creek Dam west of Phillipsburg to address unsafe conditions at the state-owned dam.

Mr. Tubbs stated that another program which is not reviewed by the legislature is the private loan program, which provides loan funding for water projects. 99% of these loans are purchases of sprinkler irrigation systems. Water associations have started to take advantage of this program. DNRC is able to look at the revenue stream that an association presents and use this as the security. They are then able to loan up to $300,000 at a fixed rate with a typical term of 15 years.

The last program which does not go before the legislature provides private grants. Between 1994 and 1998, over $200,000 has been received. These funds are to be used for meeting regulatory requirements to which private individuals, partnerships or corporations are subject. The grant is limited to $5,000 or 25% of the project cost, whichever is less. The program has been successful in delivering assistance to outlying entities with real problems, allowing them to move forward towards regulation compliance. This legislative session, the DNRC will request $100,000 for this program.

The core program involves governmental entities requesting up to $100,000 in grants and large loans backed by the Coal Severance Tax Trust. All but two of the grants approved by the 1997 Legislature have been contracted. DNRC coordinates with other grant and loan programs within the state government which fund water, waste water and solid waste facilities. These groups have coordinated to produce one common application which allows an applicant to apply for multiple sources of funding. Sixty-two applications have been submitted for this biennium **(Appendix)**. Of these, only one-third to one-half of the projects will be able to be funded.

Mr. Tubbs explained that a point system is used to rank the projects. Key reviewers contact additional experts. If there are projects on the list which the EQC believes have strong benefits, the Resource Development Bureau would be very interested in that information. Points can be lost if the financial plan is not properly prepared, if the project would create adverse environmental impacts, or if the plan lacks clear project management goals and implementation. Reviewers also look very closely at the technical feasibility of the project. The greatest designation of points goes towards public benefits, and is earned by projects which conserve, manage or protect Montana's renewable resources. Points are earned by projects which enhance renewable resources. Citizen support is considered. Tie breaker points are assigned to projects which support the State Water Plan.

After applications are ranked by the key reviewers, selected applications are reviewed by the Director and are sent to the Governor's Office. The selected applications then go into the Executive Budget Office, and are reviewed before the Long Range Planning Committee, Subcommittee for Appropriations, and Senate Finance and Claims. All the project sponsors have the opportunity to give presentations before the final decision-makers.

Challenges facing the Renewable Resource Grant and Loan Program (as presented by Mr. Tubbs) include:

One challenge which may impact the Renewable Resource Grant and Loan (RRGL) Program is the possibility of legislative changes in Resource Indemnity Trust (RIT) tax funding during the 1999 Legislative session. RIT interest revenue provides $2 million per biennium for renewable resource grants. These revenues are allocated for grants at the beginning of the biennium before allocations are made to other accounts and programs. RIT interest earnings are lower than expected this biennium. As a result,

fiscal year 1999 ending fund balances in several accounts receiving these funds are projected to be negative. This includes the Renewable Resource Grant and Loan (RRGL) State Special Revenue Account which, in April, had an estimate ending fund balance of ($1,540,380). Even though the Renewable Resource Grant funds are deposited into this account, the $2 million allocation must be used for grants. Therefore, the negative ending fund balance does not affect any of the authorized grants.

The Office of Budget and Program Planning and the executive agencies that receive RIT funding have made significant progress in reducing the projected deficits. Agencies have reduced appropriations and in some cases increased revenues from non-RIT sources. With continued action this fiscal year, all but the RRGL account will balance. A negative fund balance in the RRGL account of ($785,000) is expected to still remain by January.

Because of the funding shortfall in RIT accounts and other long standing concerns over the use of RIT, this legislative session will see many bills seeking to amend the allocation of these funds. DNRC does not believe that the Renewable Resource Grants will be impacted by new legislation; but in a legislative session anything can happen. DNRC is leading an effort to develop legislation that would shift agency expenditures out of RIT accounts and increase allocations to grants and other programs. The intent of the DNRC proposal is to replace agency appropriations, which grow over time, with fixed allocations that can be maintained by this funding source. If successful, there will be increased revenues for grant programs, the orphan share program and other programs. Of interest to EQC, the department is working with the Bureau of Mines and Geology to establish a fixed allocation of RIT interest to provide full funding for the groundwater assessment program for the first time since its creation.

Mr. Tubbs' requests of the Council included:

1. **Feedback.** Mr. Tubbs requests input from the EQC regarding the 62 applicants. Any recommendations from the Council for projects which have strong benefits, especially those which relate to the State Water Plan, are helpful.

2. **Support for grant programs.** Resource Indemnity Trust (RIT) revenues represent only a small part of all state revenues, but RIT provides a critical funding source for natural resource efforts. The Environmental Quality Council has supported many different grants over the years that have provided funding to successful local and state efforts that protect and enhance Montana's natural resources. DNRC hopes for continued support for these grant programs as the 1999 Legislative session approaches.

Council Analysis and Comment

Topics discussed by EQC following this presentation included:

1. One Council member asked if criteria were used to consider whether the project had a land use

planning element. Mr. Tubbs responded that the planning element was included in project management points. Evaluators look at the alternative analyses to see if the applicants have considered the bigger picture.

This same member asked whether the Growth Subcommittee could request that additional criteria, such as annexation possibilities, be incorporated into the point system. Mr. Tubbs stated that although it would be too late for this evaluation period, this issue could be brought to the table during the legislative process. The statute could be modified to specifically require that type of criteria. He suggested that the Growth Subcommittee and the Long Range Planning Committee look into this idea.

2. A Council member stated that most of the grant and loan applications have gone to existing infrastructure. Many small towns around the state do not have subdivisions in their areas and are struggling. Mr. Tubbs responded that the infrastructure projects need to have a strong connection to managing, protecting and improving water resources to score high on the evaluation. The communities which do well in the Resource Development Bureau's program are the ones that are installing water meters, lining lagoons, and protecting water quality.

3. One Council member asked if there was a $100,000 maximum for grants. Mr. Tubbs explained that there is no statutory maximum for a grant. As program policy, the Resource Development Bureau has recommended a $100,000 maximum for each project. Those projects requesting more funds need to go before the Long Range Planning Committee and justify why they should be funded more grant dollars than recommended.

4. A Council member remarked that the Municipal Waste Water Treatment System in Dillon has applied several times to the Long Range Planning Committee for funding assistance. They feel their problem is that their water and sewer rates are low, and that these lower rates cause them to lose points in the application review process. Mr. Tubbs remarked that while they do conduct an affordability analysis, they do not penalize a community for low rates.

5. A Council member asked how many of the 62 applications were repeats -- projects which did not get funded during the last session. Mr. Tubbs remarked that the number would be small due to the length of time between submitting an application and receiving state funds.

Options for Further Council Analysis and Comment on the RRGL Program

1. The Council could further investigate the criteria used by the RRGL program to issue grants, to determine if any Council interests (in growth issues or others) could be addressed through potential program or statutory changes to the current criteria.

Council Recommendations

1. (any?...)

2.

WATER-RELATED RESEARCH

Section 85-2-105(3), MCA, requires EQC to:

> (c) analyze and comment on water-related research undertaken by any state agency, institution, college, or university...

The Council fulfilled its role related to water research in the following ways:

- EQC staff attended and provided a presentation at the 1997 annual meeting of the Montana Chapter of the American Water Resources Association (gathering of water-related researchers) in Butte.

- EQC staff made calls to agencies involved in water-related research, seeking their insight regarding the status of water research. Responses included opinions that TMDL-related research was needed, and concern over the reduction in USGS monitoring stations.

- The EQC requested and commented on updates from two prominent water-related university research programs --the Montana University System Water Center, and the Ground Water Assessment Program at Montana Tech.

- An EQC staff representative is a member of the Ground Water Assessment Steering Committee and has provided some analysis and comment on that research program at Steering Committee meetings.

- At the direction of the Council, EQC staff have provided follow-up regarding issues raised from the above activities, or requests made during the presentations.

The two programs that were invited to present updates are described below.

Program 1: Montana University System Water Center

Background. As a result of two studies evaluating water research-- one in 1988, and the other in 1990--the Legislature's Water Policy Committee recommended that the University System restructure the Water Center to provide better services in water research and education, and to improve communication with water users. The Water Policy Committee closely followed the Montana State University's restructuring of the Water Resources Center during the 1993-94 interim. Following this restructuring, Dorothy Bradley, the new director, presented her plans for the Center to the Committee. She said that a useful Water Center will be one that provides a valuable interface between academic and other elements of society. Presently the Water Center's goals are threefold: (1) to provide useful service, research and information to all sectors in the state, (2) to develop problem-solving partnerships with the university system, government, and private sector, and (3) to serve as a switchboard for Montana water information.

Dorothy Bradley provided a progress report, and perspective on the "state of Montana water research" at the May 8, 1998 full council meeting. She reported that when Congress set up 54 water centers at land

grant institutions in 1964, each institute was given a small federal grant to pursue state-specific research and education programs. For the past three years, the funds were allocated among four regions, thus diminishing funding for Montana-specific research. However, recent congressional action indicates that state funding will be resumed, in which case the Center expects to receive $80,000 for Montana water research.

The Water Center has met all of the objectives outlined in its 1989-92 Summary of Recommendations (**Appendix**). Ms. Bradley believes this indicates that the university system has demonstrated its own "commitment to important state issues" as outlined in the Water Policy Committee's 1990 restructuring recommendations. Other accomplishments include establishment of the Whirling Disease Initiative, the Drinking Water Assistance Program, the Septic Suitability Study for the Gallatin Local Water Quality District, and the ***MONTANA WATER*** web page, all outlined in brochures which were distributed at the meeting. Ms. Bradley provided a summary sheet explaining three Montana research projects funded through the Water Center Regional Competitive Grant Program. The programs offered by the Water Center -- particularly ***MONTANA WATER*** -- are regularly used by government, university, and private parties. Information gathered and produced by the center is also shared at a variety of meetings including AWWA, AWRA, Rural Water, and the Watershed Coordinating Council.

Two challenges face the Water Center in advancing Montana-oriented water research. The first is finding support when there is no state appropriation for that purpose. Furthermore, the University faculty compete for private and national grants. Most require a state match, and those dollars are difficult to secure as well. A second challenge is coordinating with the various entities who are involved in water research and outreach, so as to correlate projects, share information, and avoid duplication. These entities include the US Geological Survey, Bureau of Reclamation, Bureau of Land Management, and state government.

Ms. Bradley made three suggestions to the EQC that would assist advancing water research:

1. **Setting priorities**. Much of the research is reactive, and often involves people scrambling for money when a problem arises. If the Council prioritizes where research most deserves to be focused, investigators will follow that direction and have an additional advantage in finding support for that focus.

2. **Advocacy**. The EQC and the Water Policy Committee indicated they would support state funding for the Water Center if the University System took the first initiative. Ms. Bradley feels MSU has done exactly that. The Water Center is well equipped to manage an expanded water research program, but would stand little chance of securing state funding without the EQC acting as an advocate.

3.. **Fostering Partnerships**. There are attractive possibilities for expanding partnerships with the university system and EQC. With help from the EQC, its staff and state government, university students and Water Center staff have written materials and constructed web presentations on topics including water rights and quality, TMDLs, I-122, whirling disease and mixing zones.

Ms. Bradley concluded her report stating that there is extraordinary capability and infrastructure within the university system to do state-oriented research. Two examples are TMDLs and source water

delineation. University teams, student labor, and private sector mentorships are untapped resources waiting to be coordinated. Ms. Bradley feels these resources are underutilized due to lack of state funds.

Council Analysis and Comment -- Montana Water Center

Topics raised by the EQC following this presentation included:

1. *The ability to quantify and identify the kinds of people utilizing the Water Center, and how these resources fulfilled their needs.* Ms. Bradley reported that the ***MONTANA WATER*** web page tracks "hits", and identifies state of origin, as well as whether the user is from education (edu), government (gov), etc. The EQC member stated that it would be helpful to the Council to know what type of users seek this information, and how this information is used, if advocating for the Center. (Note: After the meeting, Ms. Bradley forwarded to EQC a report of use of the web page, including; most popular pages, most downloaded files, weekday vs. weekend use, queries by location (state and city), etc. This information is on file at the EQC office and can be summarized for this report, if desired.)

2. *Whether the nonpoint source septic issue in Gallatin County was modeled after other studies, and whether it was being used elsewhere in the state.* Ms. Bradley explained that Kalispell, the Bitterroot area and Madison County have expressed interest in the results, and the possible transfer of the approach. A project assembling detailed, local natural resources data in a common database to track septic problems, is the brainchild of Professor Steve Custer, and the Water Center and Gallatin County Staff.

3. *Whether the **MONTANA WATER** web site contains drought information.* Ms. Bradley responded that the web does not address drought issues, and due to shortage of funds, MSU eliminated its climatologist position several years ago. Volunteers have been continuing the data set, but a coordinated information base on droughts is not available at this time. Soil moisture content is a particular component that has been discontinued.

   Mr. Jim Stimson, coordinator of Montana Water Information System (MWIS), added that MWIS is one of the partners in the drought monitoring program with the DNRC. They maintain a page on the web which addresses drought issues and is very user friendly. A precipitation index replacement for the Palmer Drought Severity Index Maps continues to be the missing piece of information in this program.

4. Ms. Bradley requested more directives from the EQC. Co-Chair Mesaros stated that this would be taken under consideration.

After the May EQC meeting, EQC staff (acting upon the Co-Chair's commitment to consider additional guidance for the Water Center) coordinated a meeting between EQC staff, Ms. Bradley, Mr. Stimson, and two members of University faculty. The group discussed ways to facilitate the requested Council direction to the Center. One suggestion was to try to determine in a more focussed manner the water research status and needs of the state, and to communicate that to the Council, in the event they wished to make recommendations to the Center, or otherwise address Ms. Bradley's requests.

In response to these discussions, Ms. Bradley circulated an e-mail questionnaire to over 100 Montana University System water faculty on the Center's network, seeking to address "the state of water research in Montana". The questionnaire asked the following three questions:

I. What are your three top candidates deserving university water research?
II. What are your current areas of water research?
III. What are your primary sources of research funding?

A list of potential topic areas was generated from the responses to the E-mail (**Appendix**). Two observations made by Ms. Bradley from the results of this inquiry are (1) minimal financial support has come directly from Montana supporting water research, and (2) there is substantial agreement regarding priority research needs.

Program 2: The Ground Water Assessment Program

Background. The Montana Ground Water Assessment Act, section 85-2-901 et seq., MCA, systematically funds efforts to evaluate Montana's ground water resource. Its major purposes are:

- to improve the quality of ground water management, protection, and development decisions within the public and private sectors by establishing a program to systematically assess and monitor the state's ground water and to disseminate the information to interested persons; and
- to improve coordination of ground water management, protection, development, and research functions among units of state, federal, and local government by establishing a ground water assessment steering committee.

Since the 1994-1995 biennium, the Assessment Act was has been funded by diverting 14.1% of proceeds from the $666,000 per year generated by the Resource Indemnity and Ground Water Assessment tax (RIGWAT), formerly the Resource Indemnity Trust (RIT) tax. However, the Ground Water Assessment Act programs experienced a serious funding short-fall in fiscal year 1994 due to lower than expected revenues to the (RIGWAT), and an error within the Metalliferous Mines Tax law.

As a result, the programs received $262,000 less than expected, causing personnel layoffs and a total stoppage of field work. The steering committee chair and the Montana Bureau of Mines and Geology staff made a series of detailed presentations to the Water Policy Committee, Environmental Quality Council, Revenue Oversight Committee, and Legislative Finance Committee. These efforts resulted in the Governor signing a grant agreement to ensure the Assessment Act programs would receive full funding for fiscal year 1995, and to eliminate the deficit from fiscal year 1994. In the following legislative session, the Legislature passed SB 46 correcting the error in the Metalliferous Mine Tax law. However, the legislature did not modify the 14.1% basis or the funding cap of $666,000 used in determining the amount of money the programs were to receive annually.

Mr. Tom Patton, program leader for the Montana Ground Water Assessment Program, and Jim Stimson, Chairman of the Ground Water Assessment Steering Committee, presented a status report to the EQC at the May 8, 1998 Council meeting (**Appendix**). The Ground Water Assessment Program consists of the

Ground Water Monitoring and Ground Water Characterization efforts under which about 720 water wells are measured quarterly and aquifer characterizations are on-going in the Lower Yellowstone River Area, Flathead Lake Area and the Middle Yellowstone River Area. Work has just begun in the Lolo-Bitterroot Area, and work in the Upper Clark Fork Area will begin within the next two years. The Ground Water Assessment Program also includes the Ground-Water Information Center (GWIC), data bases which store ground water information contained on drillers' logs and that are collected by the Monitoring and Characterization programs.

Staff at the Ground-Water Information Center (GWIC) make information readily available by updating records in databases on a daily bases. They also respond to approximately 140 to 150 calls for information each month. GWIC has information for almost 155,00 wells; water level measurements from about 5,500 wells; and high-quality site-visit data for about 3,500 wells.

Since July 1996, 1,280 customers have made a total of about 3,000 calls to GWIC for information. Persons served include the general public, water well drillers, industrial/commercial clients, engineering/technical firms, and government regulators and scientists. Information supplied by the data base is most often used to determine drilling depths, conduct ground-water research, and address issues surrounding subdivision of land.

The greatest challenge for the Ground Water Assessment Program is to effectively plan for income that arrives more than 10 months after the Steering Committee sets a budget. Program income is based on percentages of RIGWAT and Metalliferous Mines Tax receipts which are collected each year between March and May. Because the tax receipts fluctuate with the economic conditions for those commodities, the program has not received full funding since fiscal year 1995. In June, 1997, for example, the Steering Committee set the program budget to be $495,000 based on information available from the previous Legislative session, and previous performance of the tax. In fiscal year 1998, economic conditions in the oil and gas and metalliferous mines industries were such that the program had received only $396,000 by June 30. The shortfall of almost $100,000 caused water-level measurements to not be collected and delayed the start of field work in the Lolo-Bitterroot study area. Two program employees were asked to work for other Montana Bureau of Mines projects not related to the Assessment Program, effectively cutting the Ground Water Assessment Program by about 2.0 FTE in the final quarter of the year.

Chronic shortfalls in income occurred each spring for fiscal years 1996, 1997, and 1998. The annual work slowdown each year, enacted so that expenditures could remain below the amount of money received, severely handicapped progress in the program.

Mr. Patton's request of the EQC on behalf of the Ground Water Assessment Program was:

1. *That the Council support a constant and stable source of funding for the Ground Water Assessment Program should legislation be proposed to restructure the way programs are funded by the Resource Indemnity Trust tax.* Full stable funding for the Ground Water Assessment Program would include up to $666,000 annually (dependent on un-obligated cash carryover between fiscal years and the funding cap already in statute)

Council Analysis and Comment -- Ground Water Assessment Program

Topics discussed by EQC following this presentation included:

1. The Council discussed with Mr. Patton the difference between state-wide well information and the areas of more intensive Characterization Study. Mr. Patton explained that each well in the Characterization Study area was usually visited only once. Wells in the statewide monitoring network were visited quarterly to obtain time-dependent water-level data. Mr. Patton noted that the designation of the three main study areas was the result of the Ground Water Assessment Steering Committee's priorities developed pursuant to the Montana Ground Water Assessment Act.

2. A Council member raised the question regarding coordination between GWIC and other institutions. Mr. Patton remarked that GWIC routinely sends data to various groups and that coordination is a Steering Committee issue addressed at each meeting.

Options for Further Council Analysis and Comment on Water Research

1. The Montana chapter of the American Water Resources Association's annual meeting is planned for October. This gathering brings together water-related researchers and practitioners from across the state to present their work and discuss the work of others. EQC and/or Water Center staff could request and facilitate an agenda item at the upcoming meeting, tailored to further addressing the question of what should be the priorities for water research in Montana. This could be used to supplement Ms. Bradley's e-mail questionnaire, or to focus on other questions the Council would like the group to address (related to Ms. Bradley's request for guidance from the EQC, or otherwise).

2. Regarding the issue related to lack of predictability (and level) of funding for the Ground Water Assessment Program, the Council could request an update on any known proposals to restructure the RIT accounts, and provide input to those proposals. Or, individual Council members could track any such proposals during the Legislative session, to determine whether to integrate the ground water program issue into the deliberations.

3. In their role as the State Water Plan Advisory Council for this Interim, the Water Policy Subcommittee could ensure in their review of the proposed Ground Water chapter of the State Water Plan that it appropriately address any research-related roles already set forth in public policy, or recommend that be the case.

4. Their have been murmurings of Legislator intent to eliminate the funding for the Ground Water Assessment program all together. The Council could attempt to determine whether those proposals are still active, and determine whether they wished to take a position (either collectively, or individually) on such a proposal.

5. The EQC could poll and/or annually meet with state agency representatives involved in water policy implementation, facilitate a discussion and vote on water research priorities. (Ms. Bradley notes that "Priorities for People" used to be a fabulous way to help legislators prioritize funding for human services. This could be a similar but more compressed way to get results in the field of

water.) The EQC could support a small appropriation for university research addressing the priorities. The Water Center is equipped to advertise, request proposals, organize peer review, administer, and distribute results, of such a program.

6. The EQC could establish and/or support some partnership or work-study programs with Montana students. Examples might include: (1) a broad-sweep project to undertake source water delineation utilizing students, professors, and the private sector; or (2) mobilizing skilled teams under professor-advisors to assist in the technical tasks associated with the TMDL program.

Council Recommendations

1. (any?...)

2.

3.

WATER DATA MANAGEMENT

Section 85-2-105(3), MCA, requires the EQC to:

> (d) analyze, verify, and comment on the adequacy of and information contained in the water resources data management system maintained by the department [DNRC] under 90-15-305 ...

Subsection 90-15-305(2), MCA, describes the water information system:

> The Montana water information system shall make available and readily accessible, in a usable format, to state agencies and other interested persons, information on the state's water resources, out-of-state water resources that affect the state, existing and potential uses, and the existing and potential demand.

Background

As Montana's water issues continue to be a source of controversy, reliable and accessible information becomes ever more important. Effective and efficient water data management, including the gathering, storing, and dissemination of water data, is necessary for a valid long-term water policy that ultimately serves all Montanans.

The Montana Water Information System (MWIS) was created in 1986 and fully integrated into the Natural Resources Information System (NRIS). That same year, DNRC delegated its responsibility to "establish and maintain a centralized and efficient water resources data management system"[1] to MWIS. MWIS provides a central contact point for locating and obtaining all types of water data. Statutory authority for the WIS was transferred from DNRC to NRIS in 1997. The Water Policy Committee played an important role in the creation of MWIS. MWIS can be accessed through the State of Montana home page, "mt.gov", or directly at "nris.state.mt.us/wis/wis1.html".

Mr. Jim Stimson, Coordinator of the MWIS at the Montana State Library presented an update at the September 18, 1997 full committee meeting in Helena (**Appendix**). He restated that the Water Information System was created to address the need for accessible and usable information on Montana's natural resources. Use of the Internet has greatly aided the ability to provide this information. Information requests have increased accordingly, from 500 staff mediated requests issued annually by phone or mail a few years ago, to 5,000 requests made by users who accessed information through the web pages in July of 1997. A recent survey distributed to Water Information System users indicates high demand for information on wetlands, surface water quantity and quality, ground water quality and geology related to ground water studies.

Several goals were set for the 1997-1998 biennium. In response to the results of the user survey, additional information was uploaded to the Internet focusing on wetlands, surface water quantity and quality, and ground water and related geologic data. This information was improved by redesigning web pages to retrieve desired topics more directly through highlight options and button features. Water supply and drought monitoring issues were also addressed by working with the Department of Natural Resources (DNRC) to access information from the National Weather Service from which a map could be generated. Mr. Stimson has continued to coordinate with several committees, increasing data sharing and reducing

duplication of effort among such groups as the Watershed Coordination Council, Wetlands Coordination Council, Volunteer Water Monitoring Advisory Group and Drought Monitoring Committee.

Water Information System staff are continuing their efforts to enhance the content and accessibility of the System by:

1. Improving water supply/drought monitoring capabilities by providing maps monitoring precipitation and soil moisture conditions statewide with the continued assistance of DNRC and the National Weather Service

2. Supporting development of base-level information on Montana's Wetlands by revitalizing efforts to complete the National Wetland Inventory for Montana and creating a wetland clearinghouse web page to notify users that this information is available.

3. Developing easy-to-use GIS Applications to support and improve management of water-related information. This includes providing the capability for Internet users to develop and print out their own maps using GIS information, and the possibility for **Intra**net use of information **within** an agency. Currently this software exists on a six-month trial basis.

Challenges and Issues facing the Water Information System include:

1. Replacing the Palmer Drought Severity Index maps. Improved data availability and funding to calculate the replacement index locally are needed. Water Information staff will continue to work with the DNRC and other cooperators on this issue.

2. A mobile computer lab is needed to support training of state agency personnel and citizen groups on the use of geographic information systems, databases, and the Internet for water-related applications like volunteer water monitoring, watershed management, and TMDL education and outreach. NRIS is exploring grant and contract opportunities to help meet this need.

Council members were invited to visit the NRIS site at the library.

Council Analysis and Comment

A Council member questioned how many potential users would have the necessary software to be able to use the information. Mr. Stimson explained that the only software needed was a web browser or Microsoft Explorer capable of reading Java script. Should the individual requesting information have no access to Internet software, Montana Water Information System could pull the data up and send a hard copy to the individual.

Options for Further Council Analysis and Comment on Water Data Management

1. The Council could endorse the two ongoing efforts noted above.

Council Recommendations

1. (any?...)

2.

3.

APPENDICES

Services Offered to Local Watershed Groups
by the
Department of Natural Resources and Conservation

Technical Services:

- Characterize the availablity of surface and ground-water supplies.
- Define aquifer properties.
- Evaluate the relationship between surface and groundwater.
- Describe best watershed and riparian area management and conservation practices.
- Design, construct and maintain stream gaging stations.
- Monitor surface and ground-water quality and quantity.
- Analyze water quality problems.
- Assess the feasibility of water storage projects.
- Identify dam safety problems.
- Delineate the 100 year flood plain.

Non-technical Services:

- Provide clerical and other types of staff support.
- Invite and coordinate guest speakers for public presentations.
- Seek funding through grant writing, legislation and other means for watershed activities.
- Conduct background research on water resource related topics.
- Find and coordinate professional and technical assistance on watershed activities.
- Prepare water supply status reports and maps.
- Conduct economic analyses.
- Prepare watershed maps and graphic displays.
- Help develop strategies to prepare for and mitigate impacts of drought.

Educational Services:

- Provide training on the installation and use of water measurement devices.
- Provide educational workshops on water right law and procedures.
- Provide training on facilitation and consensus-building.

Since 1994, DNRC has provided the above services to watershed groups in the Clark Fork, Bitterroot, Big Hole, Beaverhead, Ruby, Sun, Yellowstone, Flathead and Musselshell river basins.

Renewable Resource Grant & Loan Program
1998 Grant & Loan Applications

Number	Applicant/Project Name	Grant Request	Loan Request	Total Project Cost
1	Big Timber, City of Lagoon Reconstruction and Lining	$100,000		$1,796,275
2	Bitterroot Irrigation District Water Conservation and Improvement	99,650		322,750
3	Boulder, Town of Water Systems Improvement	100,000	907,000	1,917,000
4	Broadwater Conservation District Slim Sam Riparian Area Implementation	25,522		45,417
5	Brockton, Town of Water and Wastewater Systems Improvements	100,000		1,020,250
6	Buffalo Rapids Project Improving Pump Discharge Line Efficiency	91,622		193,135
7	Canyon Creek Irrigation District Canyon Lake and Wyant Lake Restoration Project	244,000		319,000
8	Cascade County Conservation District Muddy Creek Restoration and Water Quality Improvement	77,000		208,220
9	Chinook Division Irrigation Association Rehabilitation and Betterment of Water Conveyance Systems	100,000		137,590
10	Columbia Falls, City of Sewer Treatment Plant Upgrade	200,000		3,577,000
11	Corvallis County Sewer District Upgrade & Expansion of Wastewater Treatment Facility	100,000		816,520
12	Cut Bank, City of Water System Improvements	100,000		3,234,250
13	Daly Ditches Irrigation District Republican Canal Diversion Dam Replacement	100,000	730,691	878,786
14	Denton, Town of Wastewater Treatment Project	100,000		943,400
15	Drummond, Town of Sanitary Sewer Rehabilitation Project	100,000		585,700
16	East Helena, City of Wastewater Treatment Facility Improvements	100,000		959,218
17	Ekalaka, Town of Ekalaka Water Source Improvement	100,000		115,000
18	Elk Meadow Ranchettes County Water District Water System Improvements	100,000		515,186
19	Eureka, Town of Wastewater Collection, Treatment, and Disposal Improvements	100,000		1,380,000
20	Eureka, Town of Water System Facility Plan	35,000		35,000
21	Fort Shaw Irrigation District Water Quality and Quantity Improvement	78,650		212,090
22	Frenchtown Irrigation District Irrigation System Water Use and Water Quality Improvements	32,900		106,090
23	Garfield County Conservation District Rehabilitation of Irrigation Diversion Dam & Outlet Works	100,000		110,500

Renewable Resource Grant & Loan Program
1998 Grant & Loan Applications

Number	Applicant/Project Name	Grant Request	Loan Request	Total Proj Cost
24	Geraldine, Town of Wastewater Improvements	50,000		811,007
25	Glasgow Irrigation District Phase 1- Vandalia Diversion Dam Rehabilitation	56,000		66,000
26	Glasgow, City of Combined Sewer Separation Project	100,000		1,600
27	Glen Lake Irrigation District Costich Dam Improvements Project	100,000		113,976
28	Havre, City of Source-Water Delineation and for Havre and Seeley Lake	100,000		141,120
29	Hebgen Basin/West Yellowstone Refuse District Composting Facility for Municipal Solid Waste	99,425	2,080,000	2,338,483
30	Homestead Acres County Water and Sewer District Water Systems Improvements	100,000		433,400
31	LaCasa Grande Estates Water and Sewer District New Water Supply System	100,000		1,045,000
32	Lake County Class I Airshed Protection	83,470		248,891
33	Lake County Conservation District Forestry Implementation Project	100,000		248,001
34	Lewis and Clark County Water Quality Protection District Helena Area Groundwater Quality Monitoring Network	100,000		125,773
35	Livingston, City of Yellowstone Street to Main Street Ditch Improvement	64,000		80,000
36	Madison County Harrison Wastewater System Improvements	100,000		1,600,000
37	Malta Irrigation District Repair and Modification of Dodson Diversion Dam	100,000	2,274,950	2,374,950
38	Mt Dept. of Environmental Quality Direct Planning Grants to Small Communities in Need	100,000		181,818
39	Mt Dept. of Natural Resources and Conservation Deadman's Basin Water Quality Improvement	100,000	401,100	609,700
40	Mt Dept. of Natural Resources and Conservation Precipitation Relationships For Montana Design Guidelines	67,000		123,350
41	Mt Dept. of Natural Resources and Conservation Seepage Monitoring Program	–100,000		134,290
42	Mt Dept. of Natural Resources and Conservation Missouri Pipe Span Rehabilitation Project	100,000	409,426	509,426
43	Milk River Project Water Users St. Mary Siphon Repair	100,000		133,000
44	Missoula, City of Rattlesnake Creek Flood Plain Restoration & Control	74,000		88,000
45	Missoula Sewer System, City of East Reserve Street Phases II & III	100,000		5,215,107
46	Neihart, Town of Water Distribution Improvements	97,770		101,726

Renewable Resource Grant & Loan Program
1998 Grant & Loan Applications

Number	Applicant/Project Name	Grant Request	Loan Request	Total Pr Cost
47	Park Conservation District Upper Yellowstone River Cumulative Effects Investigation	299,940		639,8
48	Park County Hydrogeological Reconnaissance of the Paradise Valley	100,000		215,900
49	Petroleum County Conservation District Musselshell River Assessment and Monitoring Plan	83,250		1,147,755
50	Rae Water and Sewer District Wastewater Treatment System Improvements	100,000		971,700
51	Roosevelt County Conservation District Fort Peck Assiniboine and Sioux Rural Water Supply Project	82,109		242,109
52	Sage Creek Water District "A - Closed" Watershed Classification	18,500		20,500
53	Sanders County Floodplain Delineation of the Clark Fork River	100,000		110,670
54	Sweetgrass Community County Water/Sewer District Wastewater Treatment Facility Rehabilitation/Upgrade	100,000		631,000
55	Sheridan County Conservation District Sheridan County Groundwater Management Program	99,700		231,750
56	Sheridan, Town of Water Supply Improvements	30,000		40,400
57	Teton County Conservation District Irrigation Methods and Pesticide Transport to Ground Water	100,000		160,361
58	Thompson Falls, City of Distribution System Improvements	100,000		2,202,085
59	Tin Cup County Water and Sewer District Tin Cup Lake Dam Restoration Project	100,000		422,800
60	Troy, City of Water System Master Plan	30,000		30,000
61	West Crane Sprinkler Irrigation Project West Crane Irrigation Project	100,000		1,074,400
62	Willow Creek Sewer District Total Retention Lagoon System	100,000		1,031,400
	Total	**$5,919,508**	**$6,803,167**	**$45,325,699**

SUMMARY OF RECOMMENDATIONS
THE WATER CENTER -- 1989-92

MONTANA University System
WATER RESOURCES CENTER

1. Thorson, Johnson, McKinsey Report -- June 1989 (commissioned by EQC)

   A. More specificity in stating Center's purposes and program.
   B. A detailed plan and strategy.
   C. Better coordination with state agencies and other institutions.
   D. Broadened research.
   E. Consideration of a graduate-level, water resource management program.
   F. More aggressive pursuit of grants.

2. Interagency Water Research Policy Advisory Board Report -- 1990 (from the Commissioner of Higher Education)

   A. A water research oversight counsel -- WROC.
   B. Establishing priorities for research.
   C. More externally-funded research.
   D. Information clearinghouse to improve coordination.
   E. Better access to completed research.
   F. Quality assurance through peer review.
   G. Improved coordination of information transfer.
   H. A graduate program in water resources management.
   I. The assessment of an inter-campus program to better integrate the three campus' strengths.
   J. Improved education opportunities for citizenry on water use and policy.

3. Water Policy Committee Recommendations -- 1990--(Report to the 52nd Legislature)

   A. More involvement by the Water Center in Montana water issues.
   B. A better network of researchers and users.
   C. More aggressive research program and grant proposals.
   D. Further development of academic program in water resources.
   E. Better information transfer.
   F. More university funding.

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4. Water Initiatives Committee, MSU -- June 1992

   A. Education -- develop a strong on and off campus educational program for all sectors of society (multi-disciplinary, undergraduate and graduate, continuing, long-term planning).
   B. Research -- develop a basic and applied program with emphasis on state problems (grant proposal assistance, issue-oriented, multi-disciplinary teams).
   C. Communication -- coordinate a network for education and research with campuses, the public, and agencies (two-way telecommunications, a modern structural system to accomodate information needs).

5. A Plan for Restructuring -- October, 1992 (prepared by the Montana University System for the Water Policy Committee)

   A. Policy Level -- policy development and the governing structure to provide coordination, assure relevancy, and monitoring of progress.
   B. University System Level -- a coordinating council, a program advisory committee, and an upgraded Water Resources Center.
   C. Individual Campus Level -- coordinating boards, research councils, and education councils.

6. Water Policy Committee Recommendations -- December 1992 (Report to the 53rd Legislature)

   A. The report summarized the Committee's final action of 1990 as well as the University System Action Summary. The three-page report is attached.

(The purpose of this outline is to identify the various studies which have focused on an upgraded Water Resources Center. This outline by no means does justice to the groups' efforts, and the quality and detail of their recommendations. Complete copies are available at the Water Center for those desiring more information.)

Dorothy Bradley, Director
Montana University System Water Resources Center
October 1994

Section 8. – Water Research

Introduction

Since its creation in 1985, the Water Policy Committee has considered the question - How can water research best serve Montana? Despite progress this interim, to a large extent, a satisfactory answer remains elusive.

Last interim, the Committee made the following recommendations regarding water research in general and the Water Resources Center specifically:

1990 Final Action

The Water Policy Committee endorses a strong and effective Water Resources Center. The Committee believes that before the legislature increases its commitment to water research and the Water Resources Center, the university system must demonstrate its commitment to these important state issues. At a minimum, the university system should restructure the Center charter to reflect the following goals:

a. The Water Center should become vitally involved in all water issues in Montana.

b. The Water Center should foster and nurture a network of water researchers and water research users in the state.

c. The Water Center should become the focus of water research in Montana.

d. The Water Center should pursue externally funded research through an aggressive grant proposal writing program.

e. The Water Center should facilitate the development of academic programs in water resources.

f. The Water Center should maintain an aggressive information transfer program.

Additionally, the university system should provide increased funding to allow the Center to move towards the attainment of these goals.

The Water Policy Committee will periodically review the restructuring of the Center. Increased legislative funding for water research and the Water Resources Center will be reconsidered by the Committee before the 1993 legislative session.

The MSU Water Initiatives Report was the basis for a system-wide plan developed jointly by the vice-presidents responsible for research at MSU, the University of Montana, and Montana College of Mineral Science and Technology. This report, A Plan for the Restructuring of the Montana University System Water Resources Center, was prepared in response to the Committee's 1990 recommendations and presented to the Committee in November, 1992. A copy of the Plan is included as Appendix 9.

Committee Action Summary

The Committee debated water research issues throughout the interim. Debate and discussion focused mainly on the goals of water research in Montana, the most efficient means of reaching those goals, and funding. The Committee was very interested in the University system efforts, especially at MSU, to improve water related research, education and communication.

Final Committee Recommendations

The Committee appreciates the efforts of the University System in developing its plan to implement the 1990 Committee recommendations. However, due to the unclear state fiscal situation, the Committee could not endorse the plan and its proposed funding request.[2] *Additionally, the Committee expressed a concern regarding the apparent program duplication in the restructuring plan. The Committee noted the .5 FTE Water Policy position at each of the three campuses as an example of this possible duplication.*

The Committee expressed a strong desire to work with the University System to achieve as many of the goals as possible under the current fiscal constraints. The Committee also strongly encourages the University System to increase its internal support of water research and the Water Resource Center through a reprioritization of existing funds.

[2] The Committee was informed at its December, 1992 meeting that the University System had withdrawn all of its budget modification requests except for those regarding the University library.

This interim the Committee has focused on reviewing the University System's progress implementing these recommendations.

University System Action Summary

Implementation of the 1990 Committee recommendations began at the home of the Water Resources Center, Montana State University (MSU). Bob Swenson, MSU Vice President for Research and Creative Activity, formed the MSU Water Initiatives Committee in January 1992 to review the role of MSU in water research. The following "preamble", goals, and objectives are taken from the Water Initiatives Committee report dated April 2, 1992.

> *There is growing concern over the long-term integrity of Montana's water resources. The purpose of the MSU Water Initiative is to respond as a university to the challenge of protecting the integrity of the state's water resources by developing a cohesive and coordinated water resource education and research program at MSU. The MSU Water Initiative's aim is to accomplish this by:*
>
> *(1) developing an excellent educational opportunity for today's and tomorrow's water scientists, engineers, managers, and technicians;*
>
> *(2) promoting pure and applied research to better understand the dynamics of water systems, their use and management in order to sustain the quantity and quality of Montana's aquatic ecosystems; and*
>
> *(3) encouraging and supporting communication which contributes to Montanan's knowledge and awareness of wise water stewardship.*
>
> *To fulfill the intent of the Preamble, the Water Initiatives Committee developed the following specific education, research, and communication goals and objectives.*
>
> A. *Education: Develop a strong, well-known, coordinated, on and off campus education program for students, faculty, agencies, and the public. . . .*
>
> B. *Research: Develop a strong disciplinary and multi-disciplinary, basic and applied research program relevant to important problems in the state and nation. . . .*
>
> C. *Communication: Enhance a strong communication and coordination network for water education and research programs between the campus, the public, and state and federal agencies to stimulate the educational and research goals. . . .*

June 25, 1998

MONTANA University System

TO: The Environmental Quality Council

FROM: Dorothy Bradley, Water Center

I sensed an interest at the May 8, EQC meeting, in "the state of water research in Montana." I therefore undertook an informal poll of Montana University System water faculty and specialists. From an e-mail of 108, we received 30 responses to the following questions. This survey is unscientific, but I hope it will generate further discussion.

I. What are your three top candidates deserving university water research?
II. What are your current areas of water research?
III. What are your primary sources of research funding?

Several observations can be made from the responses. First, only minimal financial support has come directly from Montana. And, second, there is substantial agreement regarding priority research needs. I look forward to being of further assistance to you in your role of "water research oversight."

I. UNIVERSITY-IDENTIFIED WATER RESEARCH NEEDS

A. Abandoned Mines and Mine Workings

B. Acceptable Standards for Surface Waters
   1. Enforcement

C. Climatic Issues
   1. Assessment of flood hazards
   2. Drought monitoring and outreach
   3. Water shortages

D. Drinking and Wastewater
   1. Bacterial contamination, particularly coliform
   2. Education/training for those in the business of water and wastewater
   3. Impacts of urbanization and growth
   4. Low-cost treatment technologies
   5. Single-family technologies
   6. Source water protection

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E. Exotics and Non-native Species

F. Groundwater
1. Dryland salinity
2. Groundwater and surface water interactions
3. Petroleum/metal contamination
4. Suburban sprawl -- high density wells and septics

G. Healthy Watersheds
1. Enhancing stream ecology
2. Irrigation return flows
3. Loss of riparian habitat and floodplains
4. Relationship between land and water uses
5. Stream de-watering
6. Watershed restoration

H. Non-point Source Pollution
1. Industry impacts
2. Riparian conditions and management
3. The effectiveness of BMPs

I. Lake Eutrophication
J. Natural Variance in Water Quality
K. Wetlands

II. CURRENT UNIVERSITY RESEARCH

A. Constructed Wetlands
1. As water treatment systems

B. Drinking Water and Treatment Systems
1. Detection of the parasite *cryptosporidium*
2. Source water protection
3. De-nitrification of waste water
4. Small system technologies and processes

C. Groundwater
1. Characterizing soil, chemical, and waterflow conditions
2. Remediation of metals
3. Bioremediation of nitrate, sulfate, radio nuclide, and petroleum hydrocarbon
4. Virus transport

D. Irrigation
1. Modeling irrigation diversions
2. Return flows

E. Lakeside Development
F. Reducing Wasted Discharges from Artesian Wells
G. Snowfall Impacts/Characteristics
H Water Quality
   1. Chemical composition of surface and ground water
   2. Impact of pollutants on aquatic biota
   3. Riparian corridor relationships

I. Wetlands
   1. National protocols for the assessment of wetlands
   2. Wetland restoration

III. PRIMARY FUNDING SOURCES

A. U.S. Departments
   1. Agriculture
   2. Bureau of Reclamation and Army Corps of Engineers
   3. Defense
   4. Energy -- National Labs
   5. EPA
   6. FHA
   7. Forest Service
   8. Geological Survey
   9. NASA-EPSCoR
   10. National Science Foundation
   11. Natural Resources Conservation Service
   12. Transportation

B. University
   1. MONTS
   2. Water Center

C. Private or Non-Profit
   1. American Water Works Research Foundation (AWWARF)
   2. National Water Research Institute (NWRI)
   3. Montana Power
   4. PEW Charitable Trusts
   5. Private industry
   6. Trout Unlimited

D. MT Departments
   1. DNRC and DEQ (particularly, federal pass-throughs)
   2. Fish, Wildlife and Parks
   3. Renewable Development Grant Program
   4. Transportation

Ground-Water Assessment Program: Status Report
Environmental Quality Council
May 8, 1998

Program History

The Legislature established the Ground-Water Assessment Program (85-2-901 et seq.) in 1991 after considering the recommendations of a Ground-Water Task Force organized by the Environmental Quality Council in 1989. Within the Assessment Program, it specifically created the **Ground-Water Monitoring and Ground-Water Characterization** efforts as mechanisms to improve understanding of Montana's ground-water resources. As part of the mandate to make ground-water information more available, the Assessment Program includes the **Ground-Water Information Center** databases at the Montana Bureau of Mines and Geology. The Legislature also created a Steering Committee to address the need for better coordination among the state, federal and local government units and to oversee progress in the program.

To address the problems shown below, the Legislature decided to "systematically assess and monitor the state's ground water and to disseminate the information..." 85-2-902(2) MCA. The Legislature recognized that ground-water information is the key to dealing with these problems.

- "Montana's citizens depend on ground water..."
- "ground-water supplies are threatened..."
- "there is **insufficient information** characterizing..."
- "**ground-water information deficiencies** are hampering..".
- "...focus on preventing ground-water contamination...but **better ground-water information** is required"
- "there is a need for better coordination among those numerous units of state, federal, and local government..."

(85-2-902(1) MCA)

Ground-Water Information Center (GWIC)

The data collected by the Characterization and Monitoring Programs would be of little use if not properly handled and made easily available. Our only view of the ground-water resource is through the borehole, and by interpreting measurements made at wells. All data gathered by the Monitoring or Characterization Programs are immediately stored in GWIC and become available for use by the people of Montana. Other agencies such as the Department of Natural Resources and Conservation use GWIC as a location to archive project data such as that from their recently completed Flint Creek Return Flow Study or the Beaverhead Ground-Water Study.

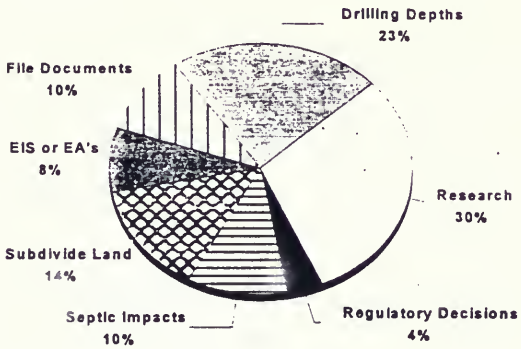
Information Center staff update records in the Ground-Water Information Center (GWIC) databases daily. They also service approximately 140 - 150 calls for information each month. Data that can be obtained from GWIC are shown below.

- Information for almost 155,000 wells.
- Results from 15,800 water-quality analyses from about 10,000 sites
- Water level measurements from 5,500 wells for periods as long as 40 years.
- Descriptions of materials encountered in about 85,000 wells.
- High-quality data for about 3,500 wells visited by Characterization Program staff and staff from other projects.

Who are GWIC customers, what questions do they ask, and how frequently do they call?

GWIC has logged more than 3,050 calls for information between July 1, 1996 (Fiscal year 1997) and March 31, 1998 (Fiscal year 1998). These customers come from all parts of Montana and have questions ranging from "**Can you locate my well log?**, to **What is the quality of water in the Lockwood area near Billings, Montana?**, to **Can you send me all completion information for wells within 2 miles of the Yellowstone Pipeline Company route in northwest Montana?**

Results from a survey of GWIC users in April 1998 show how GWIC customers use ground-water data.



In April 1998, GWIC staff conducted a user survey and 262 surveys were sent to customers who had contacted us since July 1, 1997. More than 100 surveys (38%) were returned and 56% of the responses were that ground-water data from GWIC were "always useful". Another 37% of the responses stated that the data were "often useful". Only 7% of the responses indicated that the data were of "some" or "average" use. One survey question asked, **What do you do with data from GWIC?** About 30% of the respondents said that they conduct ground-water research, 23% said that they determined drilling depths for various areas, and about 10% filed documents with either the Department of Natural Resources or the banks. It is interesting that of those filing documents (10%), subdividing land (14%), and calculating septic impacts (10%), all are looking for information to assist with potential land sales.

That the ground-water data have value is shown by customers consistently calling back for more information. Approximately 1,280 customers called GWIC more than 3,050 times between July 1, 1996 (fiscal year 1997) and March 31, 1998 (fiscal year 1998). The average number of calls was 145 per month. The data in the table below do not include direct access users, who call the databases directly.

Customer Group	Customers in Group	Number of Calls	Repeat-call Frequency
General Public (homeowners, landowners)	724	743	1.03
Water Well Drillers	46	212	4.61
Industrial/Commercial (real estate agents, businesses)	258	866	3.36
Consultant/Scientists (engineering and technical firms)	141	869	6.16
Government/Scientists (regulators and scientists)	112	369	3.29

Ground-Water Characterization

Final map products are nearing completion for the Lower Yellowstone River Area, data are being interpreted for the Flathead Lake Area, and data collection is complete in the Middle Yellowstone River Area.

Characterization Program staff began work in the Lolo-Bitterroot Area in the fall of 1997 with the establishment of an extended network of wells from which water-level data are being collected. Visits to the first of about 1,000 wells within the study area will begin after July 1998. Characterization Program staff have also attended meetings in the Lolo-Bitterroot Study Area that were held by the Missoula Valley Water Quality District and the Bitterroot Water Forum. Informal contacts were made with other organizations such as the Double Arrow Home Owners Association in Seeley Lake.

There are 10 maps currently nearing completion describing the hydrogeology of the Lower Yellowstone River Area. In addition, the Characterization Program staff have visited more than 3,500 wells in its three study areas. Work completed by the program is described below.

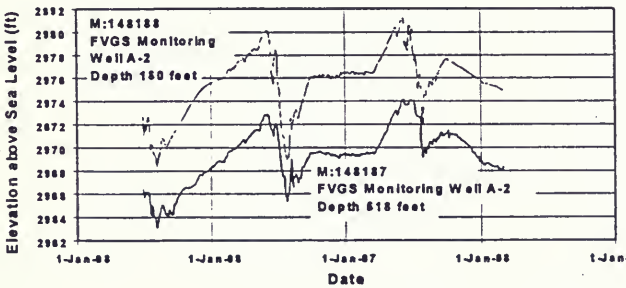
- 10 maps detailing the hydrogeology of the Lower Yellowstone River Area.
- Well-visit data for 1,476 wells and results from 188 new water-quality analyses available from GWIC for the Lower Yellowstone River Area.
- Well-visit data for 983 wells and results from 253 new water-quality analyses available from GWIC for the Flathead Lake Area.
- Well-visit data for 1,022 wells and results from 172 new water-quality analyses for the Middle Yellowstone River Area.

Long-term records of water levels are being created for selected wells in Montana. About 60% of the wells have less than 6 years of record and more than 80% of these wells have fewer than 24 measurements.

- Water level data are being collected from about 720 wells across most of the state and from many aquifers.
- About 70 water-level recorders are operating and providing continuous to hourly water-level data.

Ground-Water Monitoring

The Ground-Water Monitoring program measures water levels in about 720 wells quarterly and places the data in GWIC. The network is not yet completed because funding limitations have not allowed inclusion of wells in the far northeastern and southeastern corners of the state. Long-term records of water-levels in wells are like long-term records of stream flow or precipitation and provide better understanding of how the ground-water resource responds to seasonal and climatic change, and other factors such as increasing population. Cooperators in collecting the data include the U.S. Geological Survey, the Department of Natural Resources and Conservation, the Lewis and Clark County Water Quality District, the Missoula Valley Water Quality District, and Montana State University.



Water-level data from the Kalispell Valley shows that nearby wells of substantially different depths react in similar fashion. Long-term records of water levels assist people in planning for ground-water management and protection.

Planning Ground-Water Assessment Program operations is challenging when annual income falls 10 to 18 percent below that anticipated, and money is not available until more than 10 months of the fiscal year has passed.

	Previous April (Planned)	Following June (Actual)	Difference
FY 1997	$552,000	$517,000	$-35,000
FY 1998	$495,000	$408,000	$-87,000

Program design level - $666,000 annually

Challenges and Issues

The greatest challenge to the Ground-Water Assessment Program is to effectively plan for income that arrives more than 10 months after the Steering Committee sets budgets. Funding shortfalls each spring disrupt data collection within the Monitoring Program, delay startup of well visits by the Characterization Program, allow fewer students to be employed by the Information Center, and have a general demoralizing effect on program staff. Program income is based on percentages of annual Resource Indemnity Trust and Metalliferous Tax receipts which are primarily collected between March and May of each year. Economic factors (low gold, oil, and gas prices) have caused income be considerably lower than anticipated. Since "full funding" of the program began in fiscal year 1994, total income from the tax proceeds has been about $2.4 million, or about 28% below the $3.3 million needed to do the work in a timely fashion.

Request of the Council

If legislation is eventually proposed to restructure the way programs are funded by the Resource Indemnity Trust tax, we request that you support efforts to stabilize the amount of money allocated to the Ground-Water Assessment Program.

Case Study– Creston Gravel Pit

November 18, 1997 Representative Robert Keenan of Bigfork, called the Montana Bureau of Mines and Geology asking for assistance concerning a ground-water issue near Creston, Montana. Expanded operations at a gravel pit and an installation of a new asphalt plant had been proposed and neighbors were concerned about ground-water flow directions and susceptibility to contamination. A public meeting was to be held within a few days and no one had been able to locate any high-quality ground-water data applicable to the site.

Information collected by the Ground-Water Characterization Program served to provide independent, unbiased data about the ground-water resource for use at the public meeting. If the request had been two years earlier, there would have been no ground-water information specific to that area.

In November 1997, Ground-Water Information Center staff responded to a request with detailed information about the ground-water resources in the vicinity of a proposed asphalt plant near Creston, Montana, in the Kalispell Valley.

- A map showing the direction of ground-water flow and the altitude of the water table for the vicinity of the gravel pit.
- A map showing water-level change data for 5 wells within 3 miles of the site. Data for 5 more distant wells were also included as separate hydrographs.
- A map showing the reported locations of domestic wells within 1 mile of the project.
- Tabulated water-quality data for the area.
- All data for all wells visited in the Creston area in 1996 by Characterization Program staff.

Montana Water Information System

Update to the EQC

Introduction:

The Water Information System is part of the Natural Resource Information System (NRIS) at the State Library. NRIS was established in 1985 by the Montana Legislature, to simplify the task of identifying and acquiring natural resource information. As a program of the Montana State Library, NRIS's mission is to make information on Montana's natural resources easily and readily accessible. Serving government agencies, business and industry, and private citizens, NRIS operates a clearinghouse and referral service to link users with the best sources of information and service. The Montana State Library houses the NRIS program for two reasons: The State Library is a neutral agency with no bias in providing information, and the State Library has the mission of providing access to information.

Why is there a Water Information System?

Shortly after it was established, NRIS conducted a survey of data users to determine their needs and identify impediments to obtaining and using information. Results from the survey indicated that water data were difficult to locate, access, and use. Specifically, water quality and ground-water information were hard to find in a useable format.

In response to the survey, NRIS established the Water Information System to be a starting place to find and obtain water information. The chief activities of the Water System are to:

- Fill information request.
- Provide advice and technical assistance on data management and new technology.
- Work to increase communication and coordination among data users and sources.
- Provide support to special projects like Montana Drought Monitoring, Montana Rivers Information System, Ground-Water Assessment and others.

The Water Information System began operations in 1987 and was fully functional by 1989.

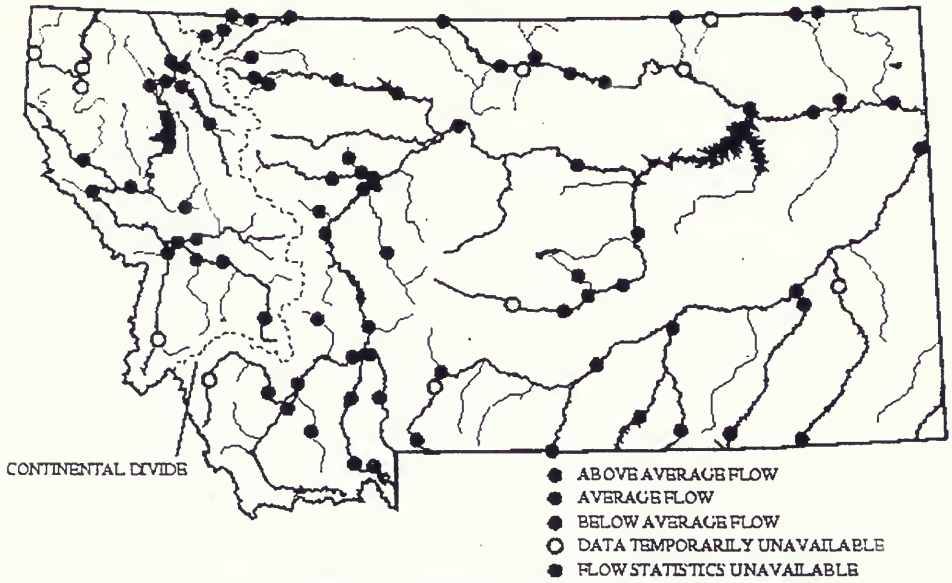
Current Status:

A second user survey.

In 1997, NRIS conducted a second user survey to help identify the kinds of information NRIS users want to access. The survey results will be used to refine Water Information services. 1,100 survey forms were sent out and 230 were returned. Survey results indicate that there is high interest and demand for information on:

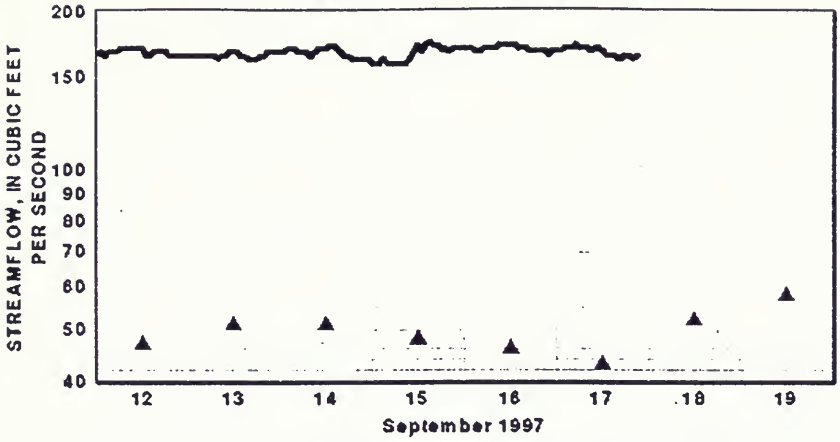
- Wetlands
- Surface water quantity and quality
- Ground-water quality and,
- Geology (related to ground-water studies?)

Current Streamflow Conditions -- Thu, Sep 18, 07:00 MDT



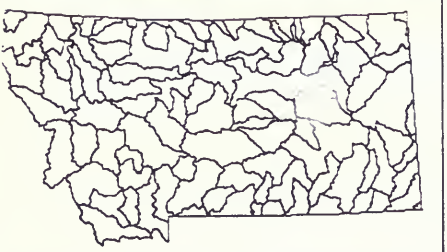
Select a site to view hydrograph and related information

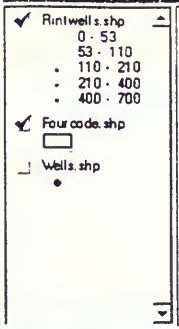
U.S. GEOLOGICAL SURVEY
PROVISIONAL DATA SUBJECT TO REVISION
12323800 CLARK FORK NEAR GALEN, MT.

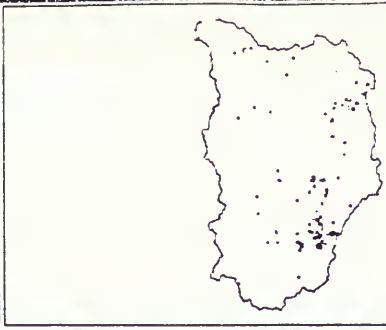


STREAMFLOW, via satellite
Updated: 09-18-1997 01:02

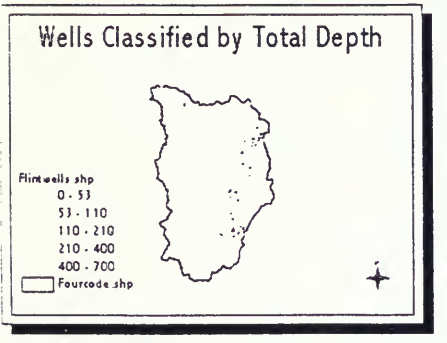
▲ MEDIAN DAILY STREAMFLOW,
based on 9 years of record







Layout1



Attributes of Flintwells.shp

Location	Name	Td	Swl	Pwl	Yield
05N 15W 08 DC	VICK DONALD & JACKIE	40.0	8.00	25.0	
06N 15W 19 DDCA	BURDETT PAUL	38.0	21.00	27.0	
10N 13W 22 CA	P D RANCH CO	21.0	0.00	0.0	
12N 17W 05 C 01	BABBITT RITA FAYE	45.0	12.00	26.0	
12N 17W 27 AD 01	CLINTON ELEMENTARY	50.0	30.00	0.0	
12N 18W 12 AC 01	TRIPPE WALTER	44.0	21.00	40.0	
07N 16W 21 ABCC	ELLIOT L.W.	40.0	22.00	34.0	
05N 14W 24 AA	PHILLIPS MR	39.0	25.00	30.0	
12N 18W 12 01	GAGNER ROBERT & NANCY	50.0	14.00	30.0	
08N 17W 06	FABRICIUS EDWIN	29.0	15.00	22.0	
11N 16W 06 CC	ELLIOTT LEE	12.0	8.00	0.0	
09N 13W 06 B 01	BISSONETTE HOWARD P.	24.0	0.00	17.5	
10N 12W 30 D	JOHNSON FLOSSIE	28.0	0.00	0.0	
11N 16W 02 BCD 01	ROPER ROBERT J	40.0	8.00	30.0	
11N 12W 31 AACA 01	DURFEE L & R	45.0	0.00	0.0	
11N 16W 07 BA	ELLIOTT LEE	20.0	12.00	0.0	